0200347

ARCO Coal Company
555 Seventeenth Street
Denver, Colorado 80202
Telephone 303 293 4000

Site East Helena
File # 1.04.04.00 and 2.06
Confidential: Yes ______ No ✓
Admin. Record: Yes ✓ No ______
Key Words/Comments: ARCO's response to EPA's request for a good faith offer concerning Process Ponds RD/RA Consent Decree
Copies to: MDHES ✓

1244066 - R8 SDMS

May 1, 1990

Administrative Record
SF File Number
1040400

VIA FEDERAL EXPRESS

VIA [redacted]

D. Scott Brown
Remedial Project Manager
U.S. Environmental Protection Agency
301 South Park, Drawer 10096
Helena, Montana 59626

RE: EAST HELENA CERCLA SITE - GOOD FAITH OFFER

Dear Mr. Brown:

In response to EPA's request, ARCO submitted a letter to Sandra Moreno, Suzanne Bohan, and Michael Goodstein on April 25, 1990 setting forth ARCO's basis for its position that it is not a potentially responsible party under Section 107(a) of CERCLA for the Process Ponds Operable Unit at the East Helena CERCLA site (the "Site"). In our April 25 letter, we requested an additional thirty (30) days to submit a good faith offer in response to the Agency's Special Notice Letter dated February 23, 1990 (the "Special Notice Letter"), in the event EPA determines that ARCO should be considered a PRP at the Site.

ARCO has not yet received a response from the Agency to our April 25 letter. In the interim, in order to ensure that negotiations with the Agency continue, we are submitting the following good faith offer in response to the Special Notice Letter. While providing this good faith offer ARCO continues to maintain that it should not be a PRP for the Process Ponds Operable Unit for the reasons set forth in our April 25 letter.

GOOD FAITH OFFER

ARCO is currently engaged in negotiations with ASARCO for performance of the RD/RA and allocation of responsibility for the Process Ponds Operable Unit, and we are optimistic that we will arrive at an agreement with ASARCO in the near future. In the event EPA determines

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that ARCO should be considered a PRP, and assuming we can reach final agreement on terms of the Consent Decree, ARCO is willing to conduct RD/RA for the Process Ponds Operable Unit.

ARCO provided EPA with comments on EPA's proposed Consent Decree on April 17, 1990. Robert Lawrence, counsel for ARCO, met with EPA and ASARCO on April 18, 1990 to discuss these comments. Our understanding based upon the April 18th meeting is that many of the provisions in the Consent Decree which caused us concern were based upon a "Model Consent Decree" which is not yet publicly available. Ms. Moreno indicated that she would determine whether the Agency has any flexibility with respect to these and other provisions we noted in our April 17 letter. Until we hear back from EPA, we reiterate the concerns expressed in our April 17 letter, and incorporate our April 17 letter by reference as our paragraph by paragraph response to the Consent Decree. We remain willing to work closely with the Agency to resolve the concerns expressed in our April 17 letter.

We understand that ASARCO is working with EPA to develop a Work Plan to implement the Scope of Work attached to the Special Notice Letter. We further understand from our April 18th meeting (but have not confirmed) that ASARCO intends to use Hydrometrics, Inc. to conduct the work.

As Mr. Lawrence discussed in the April 18th meeting with the Agency, ARCO clearly has the capability to finance the RD/RA. A copy of ARCO's most recent annual report is enclosed as Attachment 1.

ARCO continues to wait for additional supporting documentation from the Agency for its past response costs. As we expressed in our March 22 meeting and April 18th meetings, we believe the Agency should have provided such documentation along with the Special Notice Letter. At a minimum, such documentation should have been provided prior to the deadline for a good faith offer. We reiterate our request for the past cost documentation and for an extension of the Special Notice Period to respond to this cost documentation. Neverthele[illegible], in the event EPA still considers ARCO to be a P[illegible] following review of our April 25th letter, ARCO remains willing to reimburse EPA for a portion of past response costs and future oversight costs not inconsistent with the NCP, based upon our review of the entire cost documentation package once it is provided by the Agency.

ARCO will be represented in negotiations by Jeffrey H. Desautels, Atlantic Richfield Company, 555 17th Street, 20th Floor, Denver, Colorado 80202, telephone (303) 293-4444, and Robert W. Lawrence, Parcel, Mauro, Hultin & Spaanstra, P.C., 1801 California Street, Suite 3600, Denver, Colorado 80202, Telephone (303) 293-6508.

As we expressed in our April 17 letter, we believe the Consent Decree must contain a covenant not to sue and release of liability for ARCO. A covenant not to sue clearly is appropriate under the factors set forth in Section 122(f)(1) and (4) of CERCLA. With respect to the conditions in Section 122(f)(1), a covenant not to sue is in the public interest since it will encourage settlement and the expeditious implementation of an effective and reliable remedy for the Process Ponds Operable Unit. ARCO anticipates that such a cleanup will be: 1) consistent with the NCP; 2) approved by EPA; and 3) undertaken in full compliance with a Consent Decree for response to alleged releases or threatened releases addressed by the Process Ponds Operable Unit. As noted above, we understand that ASARCO is working with EPA to develop a Work Plan to implement the Scope of Work attached to the Special Notice Letter. While we have not had an opportunity to review the Work Plan, we expect that: 1) the Work Plan will provide for an effective, reliable and complete remedy for the Process Ponds Operable Unit that minimizes risks remaining at the facility; and 2) the response action will utilize technologies demonstrated to be effective. ARCO also anticipates that the Consent Order will include performance standards and that the remedial action for the Process Ponds Operable Unit will be carried out, in whole or in significant part, by the PRPs. ARCO is not aware of any circumstances that would preclude the availability of the Superfund or other sources of funding for additional remedial actions that eventually may be necessary at the facility. Thus, ARCO believes that a covenant not to sue clearly is in the public interest following consideration of the factors in Section 122(f)(4) of CERCLA. We understand that ASARCO is providing the Agency with draft covenant not to sue language, but have not yet seen this language.

This good faith offer should not be construed as an admission of ARCO's liability for the Process Ponds Operable Unit. We continue to believe that no factual or legal basis exists to hold ARCO liable for the Process Ponds Operable Unit. Nevertheless, we believe it is in the interest of all the parties to resolve this matter expeditiously and with the least possible transaction costs. In the event the Agency agrees that ARCO should not be considered a PRP for the Process Ponds Operable Unit, ARCO reserves the right to withdraw this good faith offer.

If you have any questions regarding this good faith offer, please contact Mr. Desautels or Mr. Lawrence at the telephone numbers noted above. We look forward to your response to our April 25 letter and this good faith offer.

Sincerely,

Robert L. Dent
Minerals Projects Manager
(303) 293-7938

RLD/das

xc: Suzanne Bohan, Esq.
Sandra R. Moreno, Esq.
Michael Goodstein, Esq.
Cynthia S. Lea[illegible], Esq.
William O. Hart, Esq.
Jeffrey H. Desautels, Esq.
Dr. Richard Krablin
Robert W. Law[illegible]nce, Esq.

0200351

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555 Seventeenth Street
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May 1, 1990

VIA FEDERAL EXPRESS

VIA FACSIMILE

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Robert W. Lawrence, Esq.

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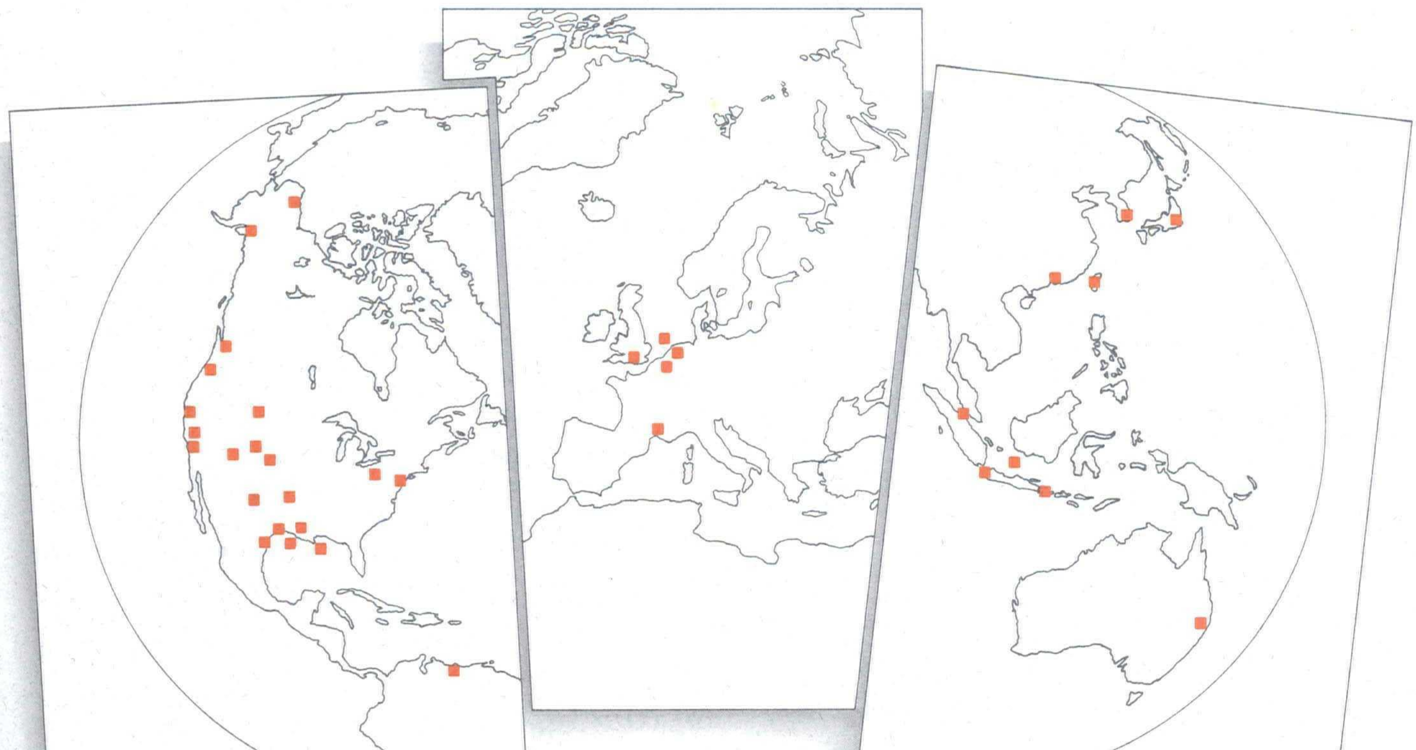
Annual

Report

A R C O 8 9

■ *ARCO, Atlantic Richfield Company, is a worldwide, integrated hydrocarbons-based company. Its operations include all aspects of the oil and gas business, from the exploration and production of crude oil, natural gas and natural gas liquids to the refining and marketing of petroleum products. ARCO also mines and markets coal and has interests in two companies that produce and market petrochemical products.*

The 1989 Annual Report shows many of the locations around the globe where the company conducts business. This report also points to the concern that the company and its employees have for the communities and the environment in which ARCO does business.



CONTENTS

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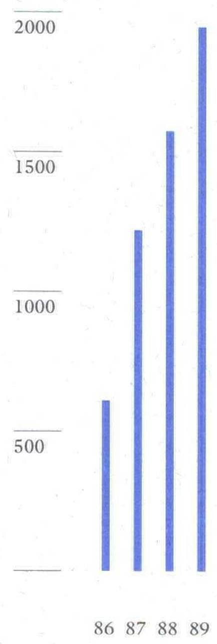
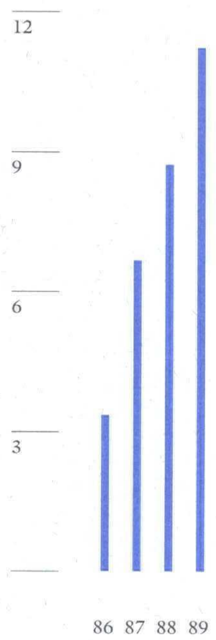
Net Income
millions of dollars



Earnings Per Share
dollars

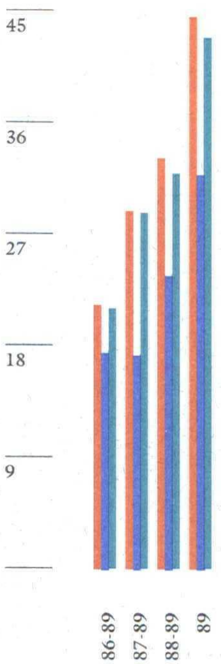


Millions of dollars except per share amounts	1989	1988	1987	1986
Financial				
Total revenues	**$16,815**	$18,868	$17,579	$15,698
Net income	**$ 1,953**	$ 1,583	$ 1,224	$ 615
Net income per share	**$ 11.26**	$ 8.78	$ 6.68	$ 3.38
Dividends	**$ 760**	$ 704	$ 714	$ 706
Dividends per share of common stock	**$ 4.50**	$ 4.00	$ 4.00	$ 4.00
Additions to fixed assets	**$ 2,105**	$ 3,304	$ 1,463	$ 1,822
Total assets	**$22,261**	$21,514	$22,890	$21,913
Return on stockholders' equity — percent	**30.5**	26.1	22.0	11.4
Return on capital employed — percent	**15.3**	13.0	10.9	7.1
Reserves				
Petroleum liquids — million barrels:				
Domestic	**2,765**	2,829	2,818	2,728
Foreign	**237**	264	223	199
Total	**3,002**	3,093	3,041	2,927
Natural gas — billion cubic feet:				
Domestic	**6,452**	6,373	5,854	5,923
Foreign	**1,206**	1,249	897	972
Total	**7,658**	7,622	6,751	6,895
Coal — million tons recoverable	**1,190**	1,183	1,028	1,115
Operating				
Oil and Gas				
Liquids production — net barrels per day:				
Domestic	**660,000**	674,200	665,000	659,100
Foreign	**70,100**	63,600	63,200	74,600
Total	**730,100**	737,800	728,200	733,700
Natural gas sales — million cubic feet per day	**1,698**	1,543	1,436	1,377
Coal shipments — thousand tons	**39,447**	32,447	26,137	27,149
Refining and Marketing:				
Total refinery runs — barrels per day	**413,100**	397,800	377,600	386,800
Petroleum product sales (West Coast) — barrels per day	**435,500**	418,800	406,200	391,100
Chemical sales — millions of pounds				
Propylene oxide and derivatives	**2,586**	2,812	2,334	1,986

Chairman Lodwrick M. Cook (inset, right) and President Robert E. Wycoff with ARCO's Board of Directors who include (from left) James S. Morrison; Ronald J. Arnault; John B. Slaughter; Donald M. Kendall, Richard H. Deihl and John Gavin (standing); Hicks B. Waldron; Henry Wendt; Wycoff and Cook; Hanna H. Gray; William F. Kieschnick, Philip M. Hawley and Roy A. Anderson (standing), and James A. Middleton.

LETTER TO STOCKHOLDERS

Total Return to Stockholders
■ ARCO common stock
■ S&P 500 Index
■ Other Major Oils common stock



■ 1989 was an outstanding year. We are pleased to share the record results with you and tell you that ARCO continues to enjoy a strong, aggressive financial and operating position.

ARCO's earnings for 1989 were a record $1.95 billion, up 23 percent from 1988. Earnings per share were a record $11.26 per share, up 28 percent from last year.

The 1989 return on stockholders' equity was 30.5 percent, placing ARCO No. 1 in the industry.

Finally, and most important, an investment in ARCO stock bought on January 1, 1989, yielded a total return of 44.5 percent through December 31, 1989, assuming all dividends were reinvested, 13 points better than the total return on the Standard & Poors 500 Index.

Reflecting our current position and confidence in the future, ARCO's Board of Directors approved an 11.1 percent increase in quarterly common stock dividends at its first meeting of 1990. At the current rate, this means stockholders will receive $5 per share annually.

These results are the consequences of the pursuit of our basic strategies. ARCO is a hydrocarbons-based company. We focus our attention on developing and managing differential assets in the business that we know best. We have continued to integrate the capital markets into our operations. For example, we completed the initial public offering of Lyondell Petrochemical Company in January 1989, and we repurchased $827 million of our stock during the year.

These strategies, which were adopted by our Board of Directors and executed by the hard work and dedication of ARCO employees, combined to achieve our outstanding results.

From an operating standpoint, Alaska continues to be one of ARCO's strengths. ARCO Alaska, Inc., earned $546 million in 1989 while producing over 167 million barrels of petroleum liquids. Moreover, we were able to confirm that the Point McIntyre field, discovered in early 1989, contains a potential 300 million gross barrels of recoverable reserves. With the largest leasehold position in the state and other promising exploration projects under way, ARCO Alaska will continue to play a very significant role for ARCO as well as the nation.

ARCO Products Company is still growing while maintaining its position as the most profitable per barrel refining and marketing operation. We retained our position as the No. 1 gasoline marketer in the five western states with 1989 retail gasoline sales up 9 percent.

ARCO Oil and Gas Company, our Lower 48 oil and gas unit, continued its outstanding exploration record with a 43 percent success rate in 1989. Recent discoveries and acquisitions along with continued development activity will help insure that ARCO Oil and Gas Company's natural gas and crude oil businesses will grow over the next several years. Increased crude oil prices contributed significantly to AOGC's improved results in 1989. The company also continued its cost control and asset management programs.

ARCO International Oil and Gas Company agreed to a 20-year contract extension with the Indonesian government enabling us to continue exploration and development in the Java Sea. In the United Kingdom, we obtained approval to develop the Welland field which will enhance North Sea gas operations.

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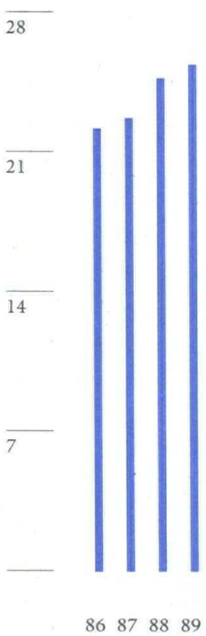
Reserves Per Share
crude oil equivalent barrels



Exploration and continued development of existing fields continue as areas of major focus for ARCO's reserve replacements. While producing 382 million barrels oil equivalent in 1989, ARCO's net proved reserve base declined by only 2 percent.

Our coal business is still growing in terms of assets and profits. ARCO Coal Company acquired an additional mine in Australia. Black Thunder in Wyoming produced its 200 millionth ton of coal in 1989, a record for any American mine.

ARCO Transportation Company is a vital link in many of our operations, particularly the integrated West Coast operations, bringing Alaskan crude through the Trans Alaska Pipeline and via marine tankers to our refineries.

ARCO's interest in ARCO Chemical Company earned the company \$336 million after tax for the year. ARCO Chemical continues to expand its worldwide business.

ARCO's equity ownership in Lyondell Petrochemical Company earned \$214 million after tax in 1989. ARCO also realized a \$634 million after-tax gain from its initial public offering of Lyondell common stock.

Looking to the future, we intend to adhere to the use of sound economic principles in the management of our business. We are equally committed to operating in an environmentally sensitive manner. In fact, we take pride in the fact that we have taken a leadership role in this effort. We are especially proud of ARCO Products Company's development and introduction of an emission control regular gasoline, EC-1, the nation's first low-emission gasoline.

ARCO also has joined the three domestic auto companies and 13 other petroleum companies in a comprehensive joint research and testing program to evaluate fuels for use today and in the future.

Throughout ARCO, people are working with increased focus on more environmental safety. Scientists in our product research center are already testing the next generation of emission control fuels. Our technical experts are developing innovative methods to inspect equipment and pipelines for wear and corrosion. Seismologists consult with ARCO environmentalists to minimize the effect of exploration on wildlife. ARCO Chemical has helped form the National Polystyrene Recycling Company. We are concerned. We are making a difference in how we live and how we conduct our business.

ARCO is entering the 1990s with a clear understanding of the challenges that face our industry and confidence that we will continue to excel. We will continue to adhere to the strategies in place. We will maintain our rigorous attention to detail at all levels of the organization. To date, this combination has provided a basis for increasing the company's value and we have every confidence that it will serve us well in the future.

Lodwrick M. Cook

Lodwrick M. Cook
Chairman of the Board
and Chief Executive Officer

Robert E. Wycoff

Robert E. Wycoff
President and
Chief Operating Officer

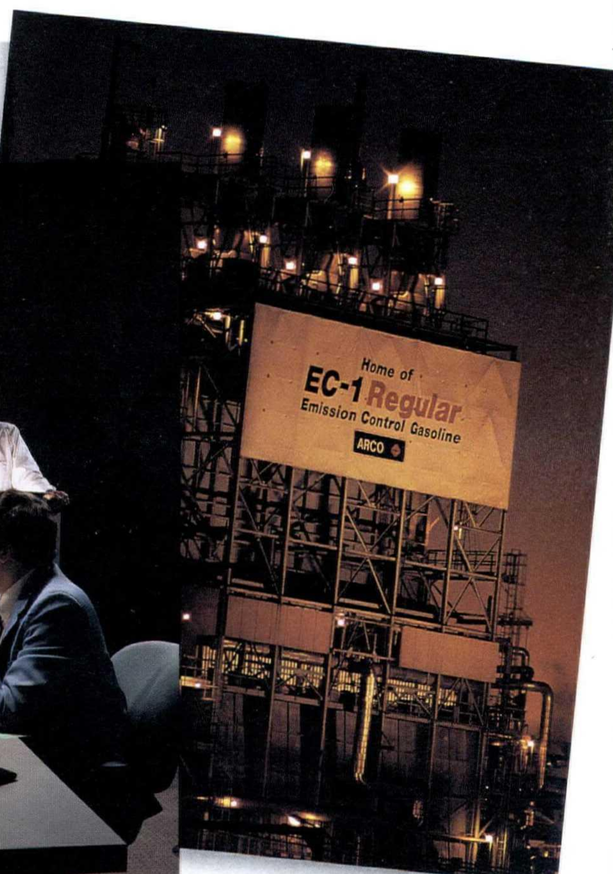
0200362

EC-1

ARCO AND THE ENVIRONMENT

■ *ARCO brings its strategic focus on developing and managing differential assets and a tradition of community service to its concern for the environment. From its stated policy of managing all operations in a manner that minimizes the environmental impact to its cooperative efforts with government agencies and grassroots work in communities, ARCO is deeply involved in both preserving and cleaning up the environment. The introduction of reformulated regular gasoline in 1989 set ARCO apart from other oil companies. With the debut of emission control gasoline, or EC-1, ARCO acknowledged that in any clean air agenda, gasoline is part of the problem, but maintained that it is also part of the solution.*

Targeting an estimated 1.2 million cars and trucks in Southern California that currently use leaded regular, ARCO's preintroduction tests concluded that if all switched to EC-1, more than 350 tons of pollutants would be removed from the air each day. Tested in independent outside laboratories, EC-1 was developed and tested initially by ARCO Products. Heading up the effort were (from left, below center) Linda Cohu, manager-product support; Eric Lingman, refinery inventory and blending coordinator; Jack Segal, director-industry liaison, and Larry Rapp, products staff chemist. Colorful, dramatic advertising and a proud proclamation at the company's Los Angeles Refinery accompanied EC-1's introduction in Southern California.



Conserving Lands

In 1989, ARCO donated 572 acres of environmentally-sensitive desert land to The Nature Conservancy, a nonprofit organization committed to maintaining the best examples of ecosystems and endangered species. The ARCO property, which is located in the middle of the Big Morongo Canyon Preserve, 30 miles north of Palm Springs, California, supports 235 species of birds and animals, including bighorn sheep and desert tortoise. ARCO had acquired the property 20 years ago. ARCO's gift of the desert property was described by Secretary of the Interior Manuel Lujan as "the kind of creative public-private partnership that will make the preservation of our nation's wildlands possible." ARCO earlier gave The Nature Conservancy $1 million to help purchase Santa Cruz Island in California's Channel Islands and preserve its wildlife and vegetation.

Doing a Better Job

ARCO manages all aspects of its business in a proactive way. Research and development of better equipment and methods to assist in the safety of continuous operations and the environment is one important area of focus. In an industry that uses millions of miles of tubes and pipe, inspections are often expensive because most are covered with a protective metallic sheathing over insulation. ARCO's research and technology center in Plano, Texas, has developed the Transient Electro Magnetic Probe (TEMP) which measures wall thicknesses without removing these coverings or shutting down the equipment. This cost-effective portable device is in use at the company's refineries. Pedro Lara, (center) senior research engineer and coinventor of TEMP, is at the fluid catalytic cracking unit (where pipes are covered with four inches of insulation) with Los Angeles Refinery Inspection Supervisor Meir Snir (right) and Pete Guevara, an outside contractor.

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Leading the Cleanup

Summer cleanup for the oil field service contractors that operate on the North Slope of Alaska resulted in more than 7,000 tons of reusable scrap metal being returned to the Lower 48 on barges. The barges were utilized in the first back haul ever offered to field service contractors. Organized by ARCO Alaska for the 20 oil field service companies that belong to the Prudhoe Bay Environmental Alliance, the back haul made it possible for the contractors to clean up Deadhorse, which is adjacent to the Prudhoe Bay field and home to these companies. Funds generated by the scraplift are being used by the Prudhoe Bay Environmental Alliance for its ongoing health, safety and environmental education programs in the oil service industry.

Environmental Assessment

ARCO Oil and Gas Company preceded its scheduled seismic survey in the Southern San Joaquin Valley of California with its own environmental assessment and special training for the seismic crews. Adjacent to the Wheeler Ridge oil field, which has been in production for many years, the area being surveyed was considered a potential habitat for threatened, endangered or rare animal species, including the San Joaquin Kit Fox, the Bluntnose Leopard Lizard and San Joaquin Antelope Squirrel. Susan Perrell, ARCO geophysicist from Bakersfield, surveyed the area with ARCO Environmental Scientists Don Keene (center) and Dee Chamberlain. The team worked in the daytime to spot possible dens and at night to try and confirm the presence of wildlife.

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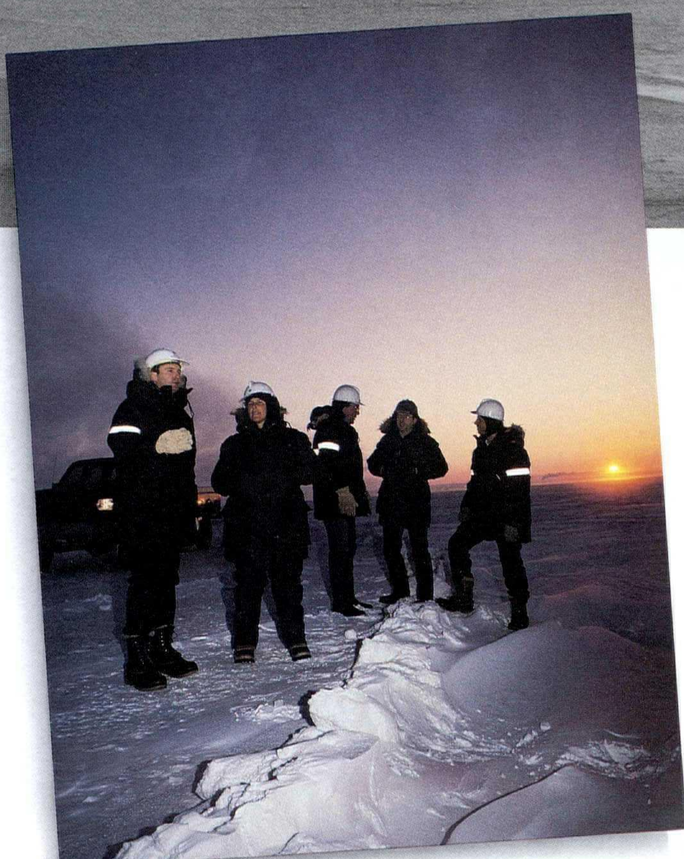


Point McIntyre, the newly discovered field near Prudhoe Bay, is being explored further during the subzero winter months of 1990 in order to define the areal extent of the field. Key ARCO Alaska employees involved in the discovery and the subsequent delineation drilling include (from left) Tom Krawietz, drilling engineer; Julie Houle, geologist; James Carlile and Gene Cooper, drilling supervisors; John Marcou, operations engineer.

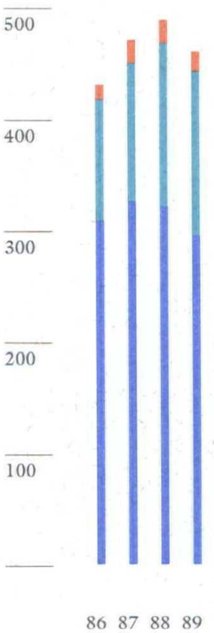
ARCO

ALASKA, INC.

	1989	1988	1987	1986
Earnings — millions	**$ 546**	$ 382	$ 487	$ 124
Total assets — millions	**$3,850**	$3,977	$4,221	$4,615
Additions to fixed assets — millions	**$ 243**	$ 214	$ 136	$ 506
Liquids production — thousand barrels/day — net	**459.4**	487.3	470.4	429.9
Average crude price — per barrel	**$11.71**	$ 8.51	$10.95	$ 6.43
State taxes — millions*	**$ 394**	$ 474	$ 328	$ 483
Exploration expense — millions	**$ 69**	$ 56	$ 45	$ 44
Net exploratory wells completed	**1**	2	0	1
Proved liquids reserves — million barrels	**1,985**	2,064	2,136	2,046
Proved natural gas reserves — billion cubic feet	**2,486**	2,484	2,207	1,985

* Includes production, property and income taxes paid in the State of Alaska, as well as lump sum settlement payments made to the state in 1988 and 1986 for income and production taxes. Does not include the state's approximately 12.5 percent share of production.

Alaska Liquids Production
thousand barrels/ day-net
■ Lisburne/Other
■ Kuparuk
■ Prudhoe



■ Alaska continues to hold much of ARCO's most valuable resources. It contributes almost two-thirds of total liquids production and offers a number of exciting exploration prospects for the future. As holder of the largest exploratory leasehold position in the state, ARCO anticipates that Alaska will continue to provide the largest part of its total worldwide production and will be a vital supplier of U.S. energy into the 21st century.

Events in Alaska in 1989 were overshadowed by the tragedy of the Exxon Valdez tanker which ran aground in Prince William Sound on March 24. Nevertheless, in many respects, 1989 was a very positive year for ARCO Alaska, Inc.

One of the most positive aspects was the announcement that the Point McIntyre discovery represents a potential of 300 million gross barrels of recoverable crude oil.

Prudhoe Bay Prudhoe Bay is a prolific oil field and an enormous resource. ARCO Alaska's working interest in the field includes 21.8 percent of crude oil production and 42.6 percent of condensate production. The field, in production since 1977, experienced its first full year of decline in 1989.

ARCO Alaska is continuing to implement projects and evaluate other opportunities that could economically mitigate production decline. These projects include infill drilling, produced water treatment and, most critically, increased gas handling capacity. Most of the gas produced at Prudhoe Bay is reinjected to help maintain reservoir pressure. The amount of gas produced has exceeded the field's gas handling capacity, thereby limiting oil production.

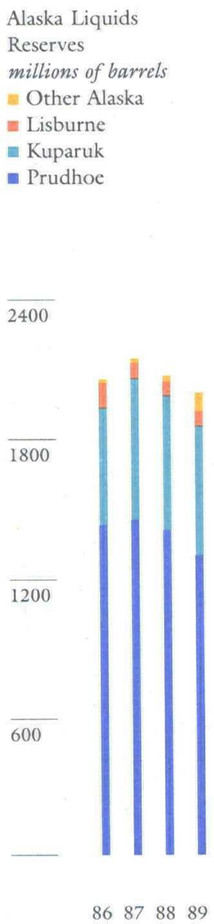
Construction began in Portland, Oregon, on a major expansion of the gas handling system in 1989. The $480 million joint project, called GHX-1, is expected to increase existing gas handling capacity from about 3.8 billion to about 5.2 billion cubic feet per day, ultimately boosting Prudhoe Bay oil production by about 90,000 gross barrels per day. GHX-1 modules will be sealifted to the North Slope of Alaska in the summer of 1990.

Kuparuk River The Kuparuk River field, 30 miles west of Prudhoe Bay, continues to show strong production performance with 1989 annual gross rate averaging almost 300,000 barrels per day. This nearly equaled the 1988 record, in spite of a significant period of production curtailments following the Exxon Valdez oil spill.

The reservoir performance continues to exceed expectations. Continued investments in waterflood

		Prudhoe Bay	Kuparuk	Lisburne
1989 Liquids production* — thousand barrels/day	Gross	1,432	299	39
	Net	294	147	14
Cumulative liquids production* — millions of barrels	Gross	6,589	615	52
	Net	1,291	304	18
Cumulative field investment — billions	Gross	$15.4	$3.8	$1.2
	Net	$ 3.4	$2.4	$0.5
Producing oil wells	Gross	705	327	65
	Net	154	184	26
Remaining proved liquids reserves — millions of barrels	Net	1,285	558	59

* Includes crude oil, condensate and natural gas liquids.



development, coupled with infill drilling and an enhanced oil recovery pilot project, will help maintain production at current levels. ARCO Alaska has a 56.3 percent working interest in Kuparuk River.

Lisburne A complex carbonate reservoir underlying the Prudhoe Bay field, Lisburne's 1989 gross liquids production was below 1988 levels. ARCO Alaska has a 40 percent working interest in this field.

West Sak West Sak is a huge oil field overlaying the Kuparuk River reservoir. Plans for a drilling and production test program for the West Sak oil field were suspended in 1989, following changes made by the State of Alaska in its production tax structure. The tax changes greatly increased the production tax burden on the planned West Sak program. Any future decision to resume West Sak field work will be based on overall project economics and risks, including the taxation policies of the State of Alaska. ARCO Alaska and the state have initiated discussions toward resolving the issues that have arisen from the new tax structure.

Exploration ARCO is committed to maintaining a strong competitive position in Alaska. ARCO currently has exploration rights to over 1.3 million acres of state and federal lands in Alaska, ranking it first in the industry.

The Point McIntyre discovery, which is north of the Prudhoe Bay producing area and was confirmed in 1989, is one of the largest hydrocarbon discoveries in the United States in the last 10 years. ARCO and its partners plan to drill three additional wells in 1990 at Point McIntyre to further define the areal extent of the field. Plans are proceeding to have the field on stream by the mid-1990s.

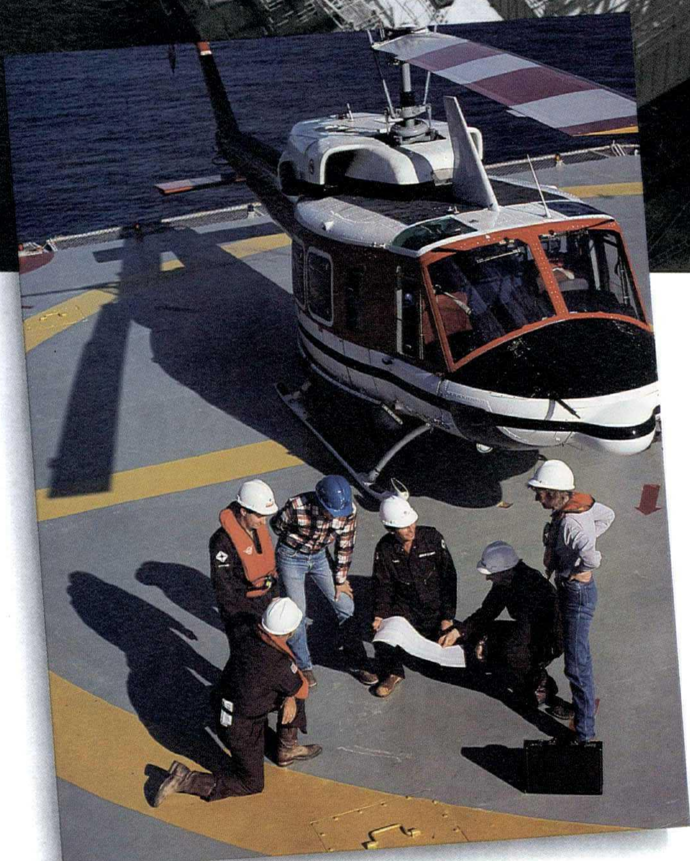
In late 1989, ARCO Alaska began drilling the Stinson exploratory well in Camden Bay about 70 miles east of Prudhoe Bay.

In the Chukchi Sea, ARCO is participating in three exploratory wells. Exploration on two of these prospects will continue in 1990. The exploration program being conducted utilizes a conservative, cost-effective approach.

The company continues to support opening of the Coastal Plain of the Arctic National Wildlife Refuge, as well as other prospective areas, to oil and gas exploration. ARCO believes that Alaska offers the potential for significant discoveries that can be developed economically and in an environmentally sound manner for the benefit of the state and the nation's energy needs.

Reserves In 1989, ARCO Alaska added proved liquid reserves totaling 89 million barrels which partially offset production. Reserve additions came primarily from Point McIntyre as well as from revisions associated with ongoing development at Kuparuk.

The Prudhoe Bay gas handling expansion (GHX-1) project includes the 3,000-ton tandem compressor module which spans 197 feet and rises 104 feet. ARCO Alaska's GHX-1 project management team includes (from left) Jim Perrine, manager-construction; John Plenger, project manager; Dick Elliott, project engineering manager and Cliff Brown, resident construction manager.

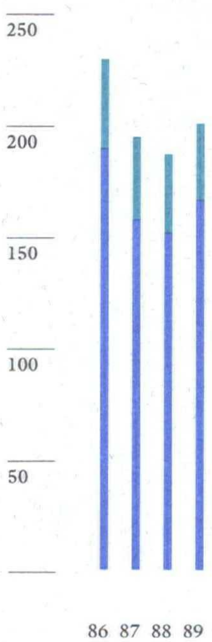


Ship Shoal 332 set a record in 1989 by drilling the longest step-out (horizontal displacement) well ever recorded in the Gulf of Mexico. Key AOGC participants in this success included, from left, Jim Jackson, drilling supervisor; Mike McCauley, reservoir engineer; Garret Chong, geophysicist; Ronnie Sepulvado, drilling foreman; Gary Mitch, geologist and Nancy Seiler, drilling engineer.

	1989	1988	1987	1986
Earnings — millions	**$ 349**	$ 231	$ 335	$ 195
Total assets — millions	**$5,068**	$5,174	$4,717	$5,384
Additions to fixed assets — millions	**$ 703**	$1,285	$ 420	$ 464
Liquids production — thousand barrels/day — net	**200.6**	186.9	194.6	229.2
Natural gas sales — million cubic feet/day — net	**1,497**	1,359	1,244	1,209
Average crude price — per barrel	**$16.92**	$14.20	$17.23	$14.66
Average natural gas price — per MCF	**$ 1.68**	$ 1.69	$ 1.64	$ 1.96
Exploration expense — millions	**$ 312**	$ 297	$ 232	$ 376
Net exploratory wells completed	**65**	68	47	55
Proved liquids reserves — million barrels	**780**	765	682	682
Proved natural gas reserves — billion cubic feet	**3,966**	3,889	3,647	3,938

ARCO OIL AND GAS COMPANY

Lower 48
Liquids Production
thousand barrels/day-net
■ NGLs
■ Crude Oil & Condensate



■ In its most successful year in recent history, ARCO Oil and Gas Company continued its focus on cost control and asset management. This combination, boosted by higher crude oil prices and strong year-round gas sales, helped again to make it one of the most profitable oil companies in the Lower 48 states on a per-barrel basis.

For the third consecutive year, the oil and gas company was able to maintain a cost per equivalent barrel of about $10, before tax. If inflation is taken into account, real costs per barrel have actually decreased.

During 1989, the recently purchased Tenneco West Coast properties were integrated into ARCO Oil and Gas Company. In addition, the company continued to sell less-productive properties as part of its ongoing asset management program.

Liquids Production ARCO's Lower 48 crude oil and condensate production averaged 166,200 barrels per day, a 10 percent increase compared with 1988. The increase is attributed to the inclusion of the recently acquired properties, offset somewhat by the loss of production from South Pass Block 60, the company's largest offshore oil field, as a result of a platform fire in March 1989. Average natural gas liquids production decreased 4 percent. Lower NGL volumes are related to property sales and gas plant shutdowns that are part of the ongoing asset management program.

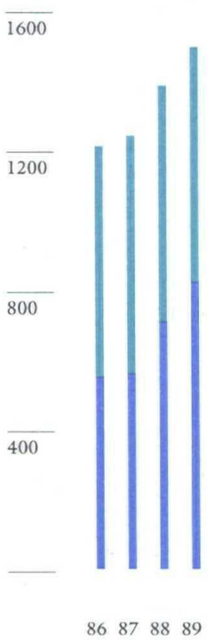
Natural Gas Natural gas sales reached an average of 1.5 billion cubic feet per day as ARCO recorded its first full year of production from the Wilburton field in southeastern Oklahoma as well as several new fields both on and offshore Texas. This represented a 10 percent increase over 1988 production.

The deep gas from the Wilburton field, discovered in 1988, produced 139 million net cubic feet per day in 1989. Additional development wells, gathering and processing facilities are expected to further increase the production level in 1990.

In another natural gas project, ARCO commenced production of gas from the Fruitland Coal Formation in the San Juan Basin of southern Colorado and northern New Mexico. Located at a depth of 3,000 feet, the coal seam lies above a sandstone reservoir from which ARCO has produced natural gas for 35 years. This nonconventional gas reservoir is being developed with state-of-the-art coal seam degasification technology. ARCO's properties in this area are on the Southern Ute Indian Reservation where ARCO is the largest operator.

As of the end of 1989, ARCO had drilled 78 wells in the coal seam

Lower 48
Gas Sales
million cubic feet/day
■ Offshore
■ Onshore



and participated in an additional 55 wells (11 net) drilled by other operators. With the startup of 34 wells and four treating sites, coal seam field production averaged 16 million cubic feet per day in 1989. New development drilling and facility installations should increase production to an estimated 35 million cubic feet per day in 1990. In 1989, this project added 148 billion cubic feet to the company's proved natural gas reserves.

From a time when 100 percent of the company's natural gas was sold to pipeline companies, ARCO is now selling 65 percent of its production directly to local distribution companies, major industrial and utility end users and independent marketers. This is the result of changes in regulation of the natural gas industry and the settlement of substantially all of ARCO's take or pay disputes with pipelines. A key benefit from these settlements was the release of ARCO's gas from supply contracts, allowing the company to pursue year-round sales. ARCO has established a separate marketing entity which is responsible for the sale of the company's natural gas production.

Exploration Continuing its business-oriented strategy of exploration in areas which include both economic reserves and major reserve opportunities, ARCO Oil and Gas Company has maintained an active, successful program in the Lower 48.

Exploration and extension activity has increased in the Gulf Coast both on and offshore. Significant extension wells were drilled in mature fields like High Island 24L, High Island A467 and Ship Shoal 332 as well as new fields like High Island 177 and East Cameron 60.

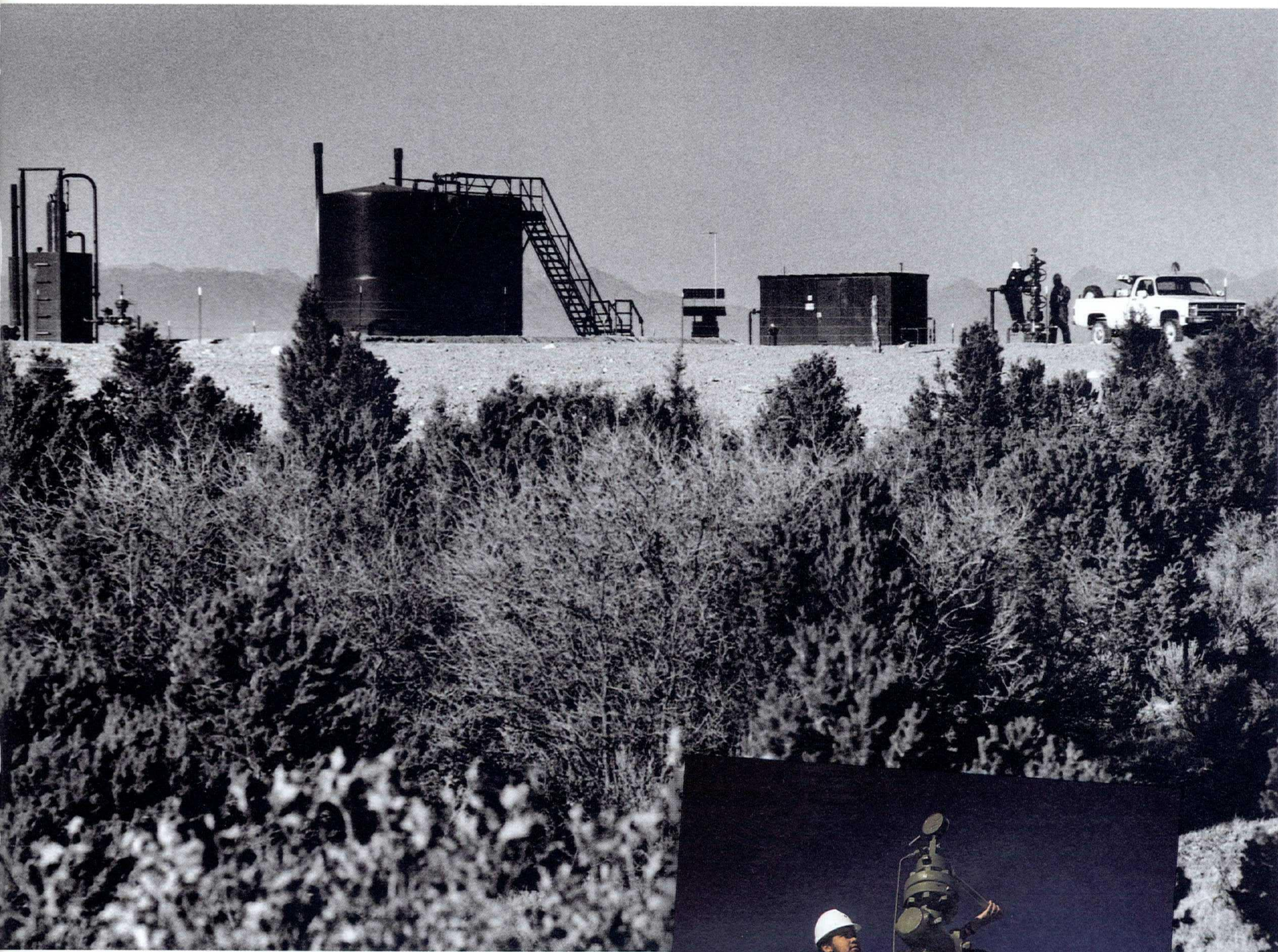
Activity continues in the Arkoma Basin playing off past successes. Exploration is progressing on the property acquired from Tenneco in California's San Joaquin Basin. In 1990, ARCO will drill seven ARCO-operated wells and farm out 15 wells.

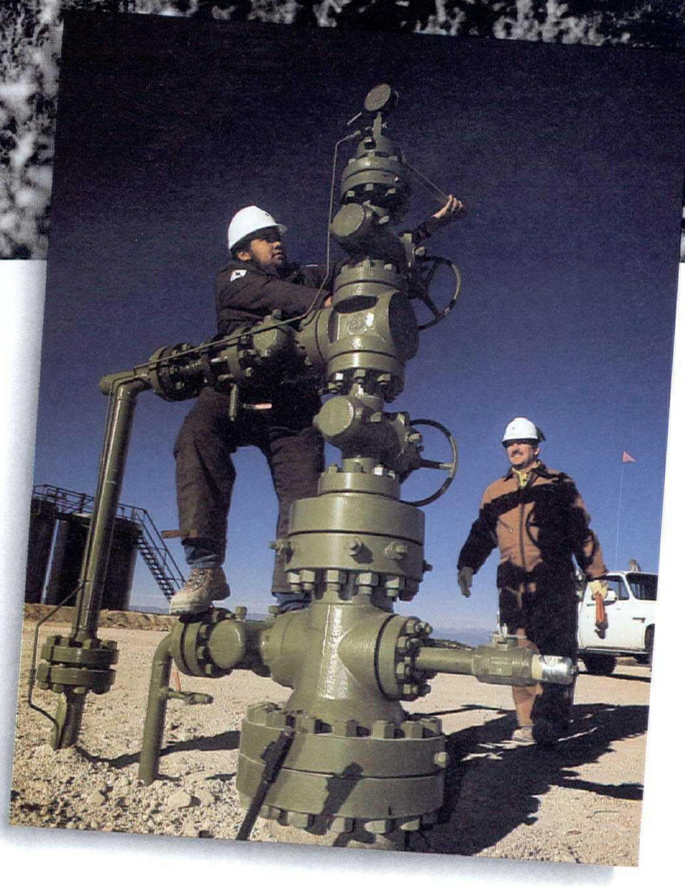
Overall, ARCO Oil and Gas Company participated in 79 exploratory wells (65 net working interest) in 1989 with 34 discoveries (six oil and 28 gas) for a success rate of 43 percent.

Reserves The 1989 discoveries, combined with development additions, acquisitions and other revisions, boosted ARCO Oil and Gas Company's proved oil equivalent reserves by 2 percent. This represents reserve additions of 88 million barrels of oil and natural gas liquids and reserve additions of 631 billion cubic feet of natural gas.

Technology ARCO Oil and Gas Company manages the Research and Technology Services (R&TS) center that develops advanced, innovative technology for all three ARCO exploration and production companies. In 1989, the department provided a significant number of improved, proprietary exploration technology concepts and processes.

Further, advanced equipment and methods were developed for lowering the costs of a range of oil field operations, and more than a dozen of these were successfully licensed for widespread industry use. Two examples of such licensed technology are a vapor pressure analyzer for accurate determination of true vapor pressure of hydrocarbons in vessels and pipelines, and a sensor system that monitors drill-string vibrations and allows optimization of the drilling process.





Production of natural gas from the Fruitland Coal Formation in the San Juan Basin of southern Colorado began in 1989, and by year's end 34 wells and four treating sites were in operation. Pumper Wendell Valdez (left) and W. James Hill, area production superintendent, check the 18-6, 32-7 wellhead.

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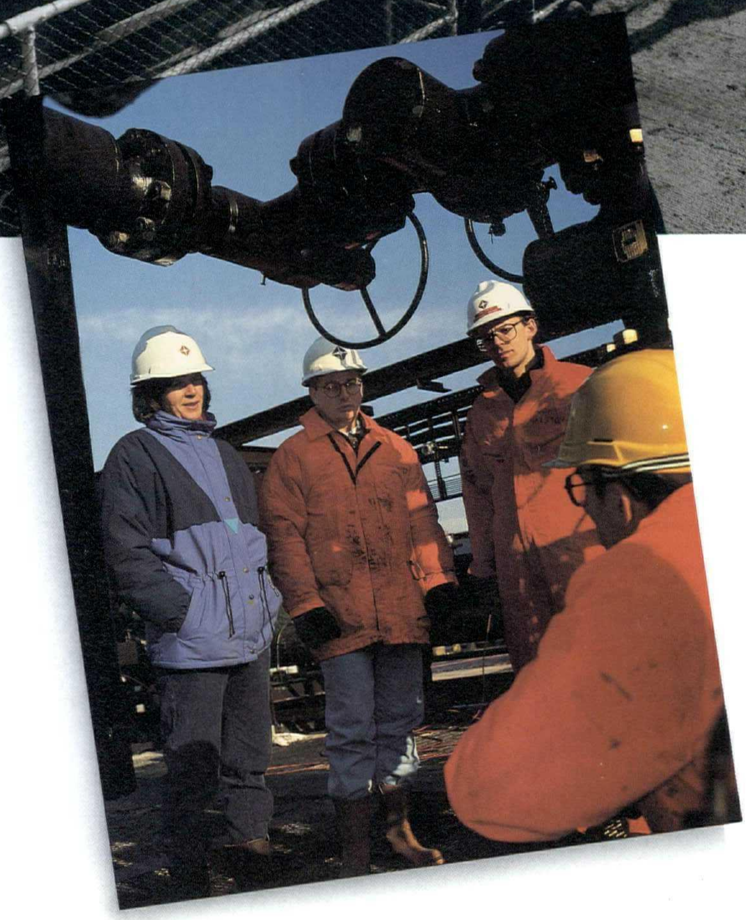

An extensive environmental program is integral to development of Wytch Farm, the largest onshore oilfield in Western Europe. ARCO London-based staff, including (from left) Marilyn Merryweather, staff geophysicist; Steve Childs, geologist, and John Marston, petroleum engineer, toured one of two sites on Furzey Island, where oil production began in 1989, with British Petroleum Operator Robert W. Thompson (kneeling).

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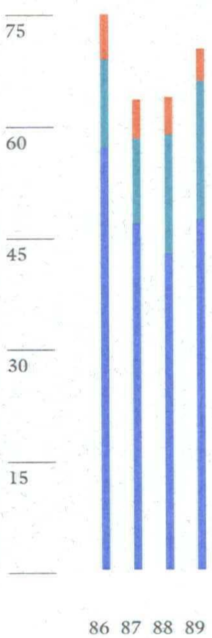
ARCO INTERNATIONAL OIL AND GAS COMPANY

	1989	1988	1987	1986
Earnings (Losses) — millions	**$ (8)**	$ (71)	$ 13	$ 14
Total assets — millions	**$1,902**	$1,895	$1,089	$ 993
Additions to fixed assets — millions	**$ 363**	$1,056	$ 165	$ 352
Liquids production — thousand barrels/day — net	**70.1**	63.6	63.2	74.6
Natural gas sales — million cubic feet/day — net	**169.2**	154.1	164.4	132.6
Average crude price — per barrel	**$16.25**	$14.20	$16.44	$13.77
Average natural gas price — per MCF	**$ 2.71**	$ 2.64	$ 2.36	$ 1.51
Exploration expense — millions	**$ 98**	$ 132	$ 105	$ 59
Net exploratory wells completed	**18**	20	15	9
Proved liquids reserves — million barrels	**237**	264	223	199
Proved natural gas reserves — billion cubic feet	**1,206**	1,249	897	972

International Liquids Production *thousand barrels/day-net*
NGLs
Other
Indonesia



ARCO views international oil and gas exploration and production as an area of great promise for the future.

ARCO International Oil and Gas Company, headquartered in Plano, Texas, is actively building this worldwide business. It has significant operations in the North Sea and in Indonesia and also operates in Dubai. Its land position totals 39 million gross acres in 20 different countries. This inventory of prospective properties will provide a solid base for ARCO International's active and growing exploration efforts.

North Sea The North Sea continues to be one of ARCO International's strongest development and production areas. Net gas sales from fields in the North Sea averaged 149 million cubic feet per day in 1989, a 15 percent increase over 1988. New developments scheduled to come on line in 1990 should increase ARCO's net daily gas production from the North Sea by approximately 90 million cubic feet per day on a full-year basis.

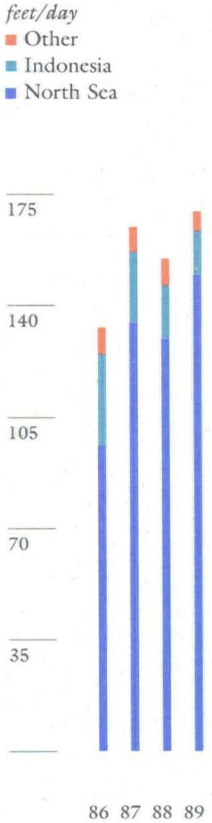
The Thames-area gas fields, which ARCO has operated since the fields began producing in 1986, averaged 146 million cubic feet per day gross production with 63 million cubic feet per day net to ARCO in 1989.

The company is proceeding with development of the Welland gas field after receiving government approvals. Projected to be in operation by October 1990, Welland will utilize a cost-efficient, remotely controlled platform that will be operated by ARCO from the Thames production facilities. Production from Welland, where ARCO has a 25 percent interest, should add 25 million net cubic feet of gas sales per day.

In their first full year of production, the Vulcan and South Valiant fields in the United Kingdom North Sea produced 19 million cubic feet per day net to ARCO. ARCO's share of sales from the Hewett gas field was 31 million cubic feet per day, while the K-12 fields in the Dutch waters of the North Sea also averaged 31 million net cubic feet per day.

Other North Sea fields scheduled to begin production in the near future include the Ravenspurn North, Amethyst and Pickerill gas fields. ARCO has a 19 percent interest in Ravenspurn North and a 13 percent interest in Amethyst, both of which are expected to begin production in late 1990. Pickerill, where ARCO is the operator and has a 31 percent interest, is scheduled for startup in 1992. The combined reserves in these three fields total 558 billion cubic feet net to ARCO.

International Natural Gas Sales
million cubic feet/day



On the southern coast of England, ARCO has a 17.5 percent interest in the Wytch Farm development, which is the largest onshore oil field in Western Europe. The field operator, British Petroleum, is currently completing construction of a gathering facility that will expand gross liquids production from the current 10,000 barrels per day to 60,000 barrels per day by the second half of 1990.

In addition, options are being pursued for development of the Wytch Farm offshore oil potential confirmed by delineation wells completed in early 1989.

Indonesia ARCO International currently produces oil and gas in two Indonesian areas — the Java Sea and the Malacca Straits. A new 20-year concession agreement with Indonesia covering the Java Sea is expected to be signed in early 1990. This agreement will extend ARCO's contract to operate in this prolific area until the year 2017.

Gross production in the Java Sea and the Malacca Straits yielded 190,000 barrels per day of crude oil and natural gas liquids during 1989. ARCO's share of production was 50,000 barrels per day.

A gas supply agreement with Pertamina, the Indonesian national oil company, is being negotiated and would allow the development of the large Pagerungan gas field, located within the ARCO-operated Kangean contract area offshore Bali.

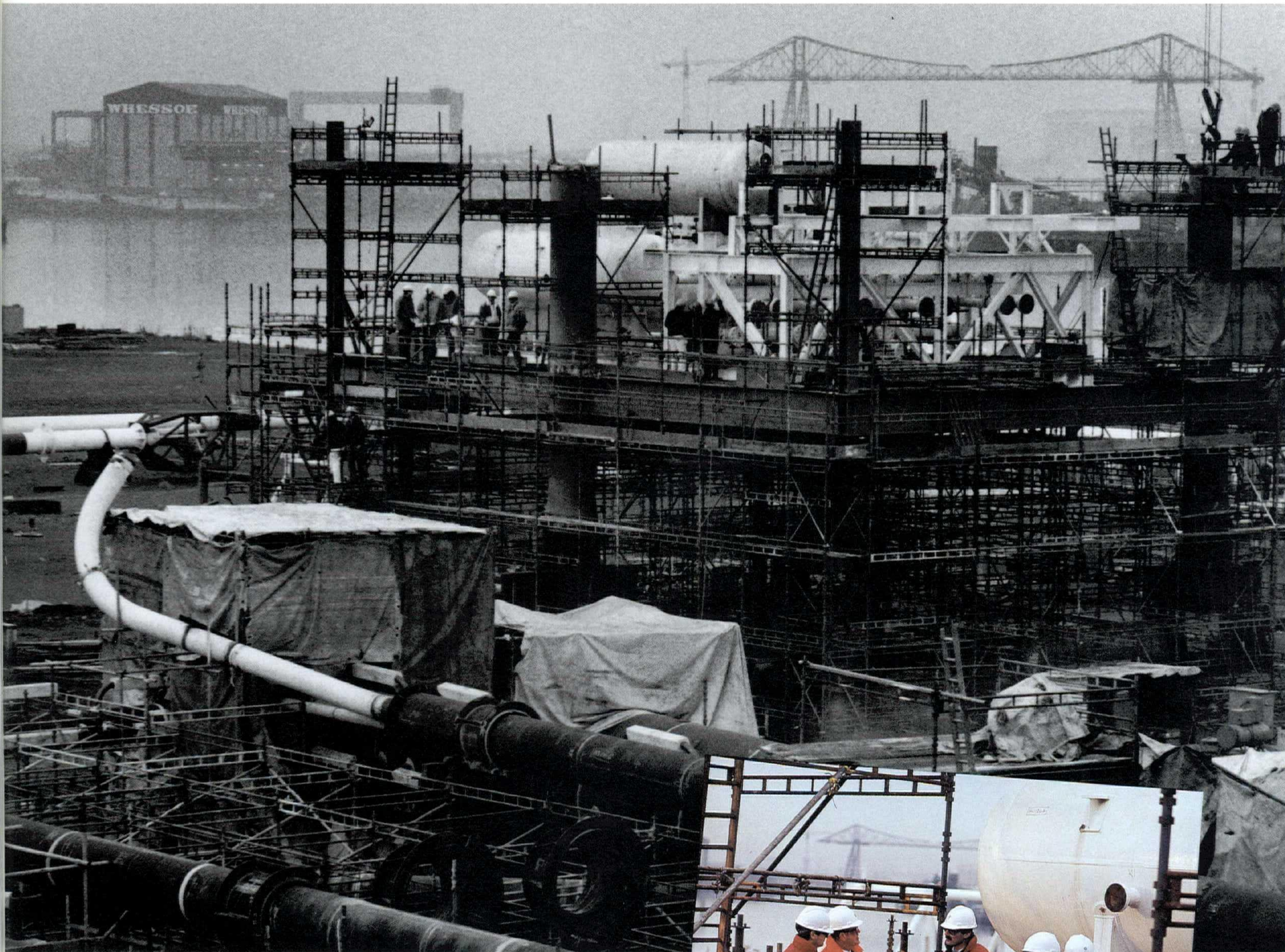
Dubai Effective January 1, 1990, ARCO International increased its interest in the Margham field to 100 percent by purchasing the one-third interest held by co-owner British Petroleum. The acquisition increased the company's net proved reserves to 29 million barrels of crude oil equivalent in Dubai, an increase of approximately 10 million barrels. Net production from the Margham field averaged 8,700 barrels per day of condensate and natural gas liquids in 1989.

Exploration ARCO recognizes growth through exploration as the fundamental basis for long-term success in the international oil and gas business. In keeping with this philosophy, ARCO International dedicated considerable effort in 1989 to improving its portfolio of exploration acreage. The company added new exploration licenses covering seven million gross acres in seven countries: the Congo, Egypt, West Germany, Indonesia, the Netherlands, New Zealand and the United Kingdom.

During the year, the company operated or participated in 45 (18 net) exploratory wells throughout the world, resulting in nine discoveries.

A more aggressive exploration program involving participation in nearly twice as many wells in 1990 will allow ARCO to begin testing much of its new acreage.

Reserves ARCO International's net proved reserves at year end totaled 237 million barrels of liquids and 1.2 trillion cubic feet of gas. On an oil equivalent basis, proved reserves declined by 7 percent in 1989 due primarily to production.



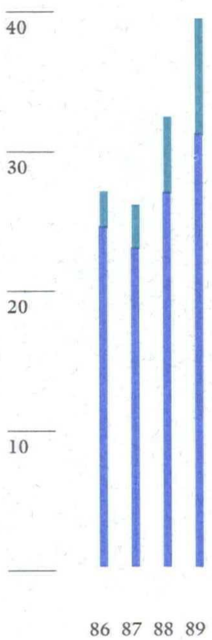
■ *The Welland platform will be the first remotely controlled, fully automated North Sea development to use both platform and subsea wells. At the fabrication site in England were (from left) ARCO's Donny Carter, project engineering supervisor, and Mike Horne, resident operations representative with Paul Matraszek, resident construction manager; Ed Davies, operations technician, and Frank Cook, staff project engineer-control systems.*

■ *A near-pit crushing and conveying system completed in 1989 is helping ARCO's Black Thunder mine improve its efficient, low-cost operations. Mike Snodgrass, (left) plant operations technician, and Bill Baumberger, supervisor-plant operations, work at a head pulley motor operating the 11,700 foot conveyor that moves the crushed coal from the mining operation to waiting trains. Near-pit crushers in background process 5,200 tons of coal per hour.*

	1989	1988	1987	1986
Earnings — millions	**$ 92**	$ 79	$ 67	$ 76
Total assets — millions	**$ 857**	$ 725	$ 540	$ 567
Additions to fixed assets — millions	**$ 148**	$ 107	$ 12	$ 15
Average market price — per ton	**$13.95**	$13.71	$13.14	$13.02
Coal shipments — millions of tons	**39.4**	32.4	26.1	27.1
Coal reserves — million tons recoverable	**1,190**	1,183	1,028	1,115

ARCO COAL COMPANY

Coal Shipments
million tons
■ Foreign
■ Domestic



■ 1989 was a record year for ARCO Coal Company for both earnings and coal shipments. The company continued its international and domestic expansion programs.

Domestic Operations Increased domestic sales resulted from a strong domestic coal market fueled by growing electrical demand and increased demand for low-sulfur coal.

One of the largest domestic coal companies and the largest producer of low-sulfur coal in the United States, ARCO Coal Company owns and operates the Black Thunder and Coal Creek mines in Wyoming's Powder River Basin and three underground mines in Colorado and Utah.

Black Thunder and Coal Creek mines had record total production in 1989. Shipments totaled 29.7 million tons, up from 25.5 million in 1988. Black Thunder, in production since 1977 and the largest coal mine in the United States, topped 200 million tons of total lifetime production in 1989. It is the most productive coal mine in the Americas and yet, in Black Thunder's 13 years of production, ARCO's ongoing reclamation project has restored approximately 1,080 acres.

Most of the Powder River coal is sold under long-term contracts, some extending beyond the year 2000.

Mountain Coal operates underground mines in Utah and Colorado which produce high-quality, high British Thermal Unit (BTU) coal with low sulfur content. Total shipments were 1.4 million tons in 1989.

Australian Operations ARCO Coal continues to expand its Brisbane-based Australian operations and ARCO has become one of the largest coal producers in Australia. The company's Australian interests shipped a net share of 8.1 million tons in 1989.

In early 1989, ARCO completed the purchase of Cook Colliery, an underground mine that fits strategically with other Australian interests. Cook Colliery shipments in 1989 for both steam and coking coal totaled 1.2 million tons.

Ownership in Blair Athol was increased from 27.6 percent to 31.4 percent. Blair Athol produces steam coal from its 90-foot-thick coal seam. The majority of its production is committed to Japanese electric utilities under a long-term contract. Total shipments from Blair Athol reached 7.8 million tons in 1989.

The Curragh mine is 87 percent owned and operated by ARCO. In 1989, total shipments from Curragh were 1.6 million tons of steam coal for domestic consumption under long-term contract with the Queensland Electrical Commission and 3.8 million tons of coal for the export market. Curragh exports primarily hard coking coal.

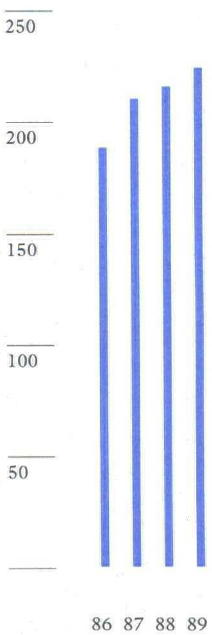
New Ventures Midway between Curragh and Blair Athol in Central Queensland is an underground mine project, Gordonstone, currently undergoing a feasibility study for future development.

ARCO Coal is also a participant in a joint venture agreement that could lead to further development of the Guasare coal resource in Venezuela.

ARCO PRODUCTS COMPANY

	1989	1988	1987	1986
Earnings — millions	**$ 291**	$ 368	$ 150	$ 353
Total assets — millions	**$2,175**	$1,975	$1,850	$1,628
Additions to fixed assets — millions	**$ 314**	$ 251	$ 318	$ 246
Refinery runs — thousand barrels/day	**413.1**	397.8	377.6	386.8
Petroleum product sales (U.S.) — thousand barrels/day	**435.5**	418.8	406.2	398.8
Branded retail outlets (U.S.)	**1,700**	1,700	1,750	1,700

Gasoline Sales
thousand barrels/day



■ Increases in refinery runs and product prices helped ARCO Products Company to report earnings of $291 million for 1989. At the same time, ARCO Products led the industry in introducing the first emission control gasoline for older cars and trucks.

EC-1 Development ARCO Products maintains an engineering and technology center at Anaheim, California, and it was here that engineers and technicians conducted the research that led to ARCO's dramatic late summer announcement — the company was replacing its regular leaded gasoline in Southern California with EC-1, a new low-emission gasoline specifically designed for pre-1975 cars and pre-1980 trucks. The move won praise from air quality officials and helped to assure gasoline a prominent place in the consideration for future automotive fuels. EC-1's introduction marked another step in ARCO's continuing industry leadership in cleaner fuel development.

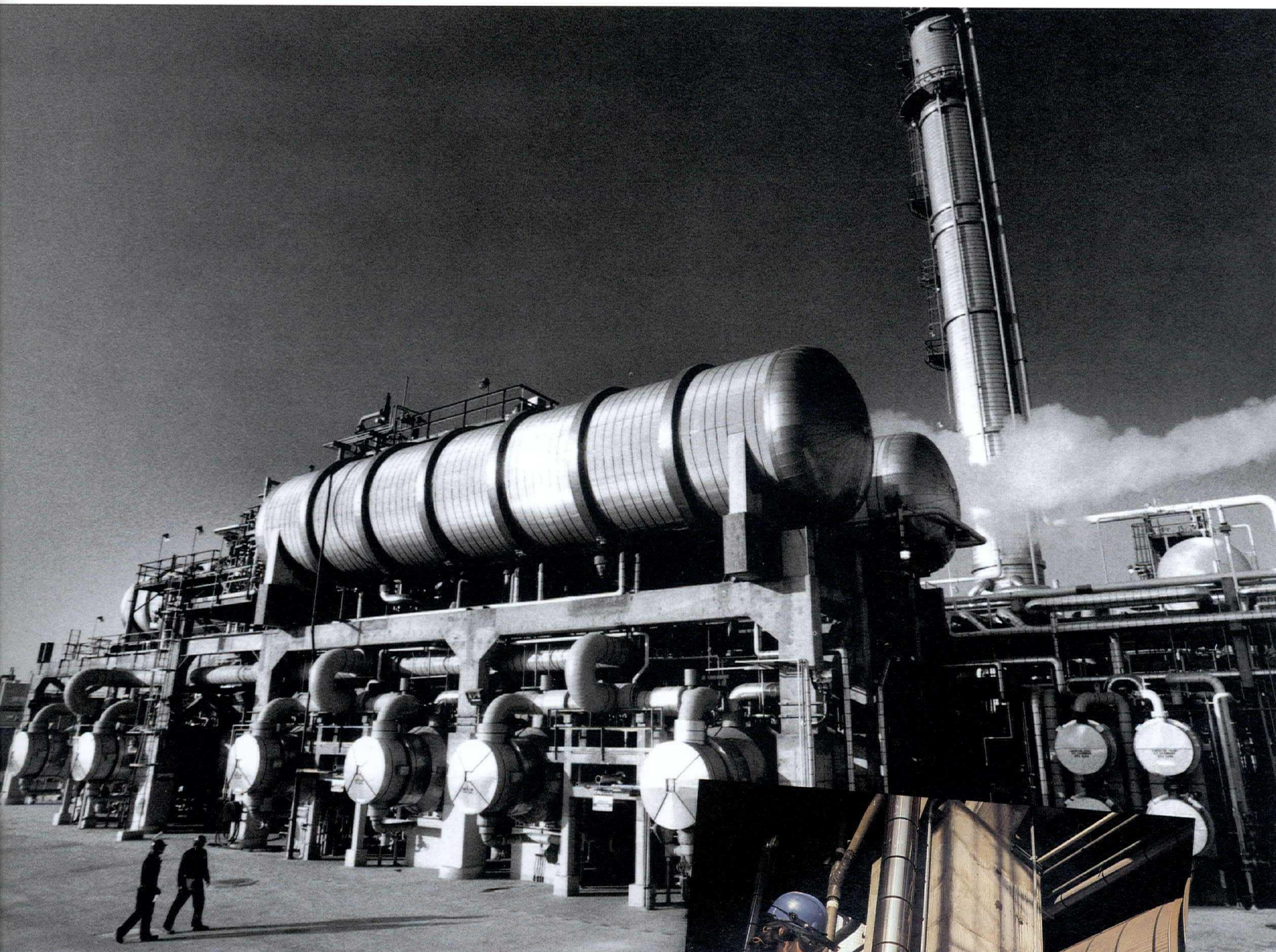
Refining ARCO Products is consistently one of the industry's most productive and efficient refiners. It operates refineries in Southern California and Washington State and processes North Slope crude oil exclusively. In 1989, the company exceeded its previous records achieving refinery runs of 413,100 barrels per day, up from 397,800 barrels per day in 1988. Total light product yield, which includes gasoline and distillates, was 88 percent.

ARCO Products has been involved in a number of projects at its refineries to increase both capacity and octane levels. In 1989, the Los Angeles Refinery completed a new alkylation unit which increased gasoline production and also added to the octane pool. In January 1990, this refinery brought a methyl tertiary butyl ether (MTBE) unit onstream, providing the flexibility to produce a higher proportion of premium gasoline.

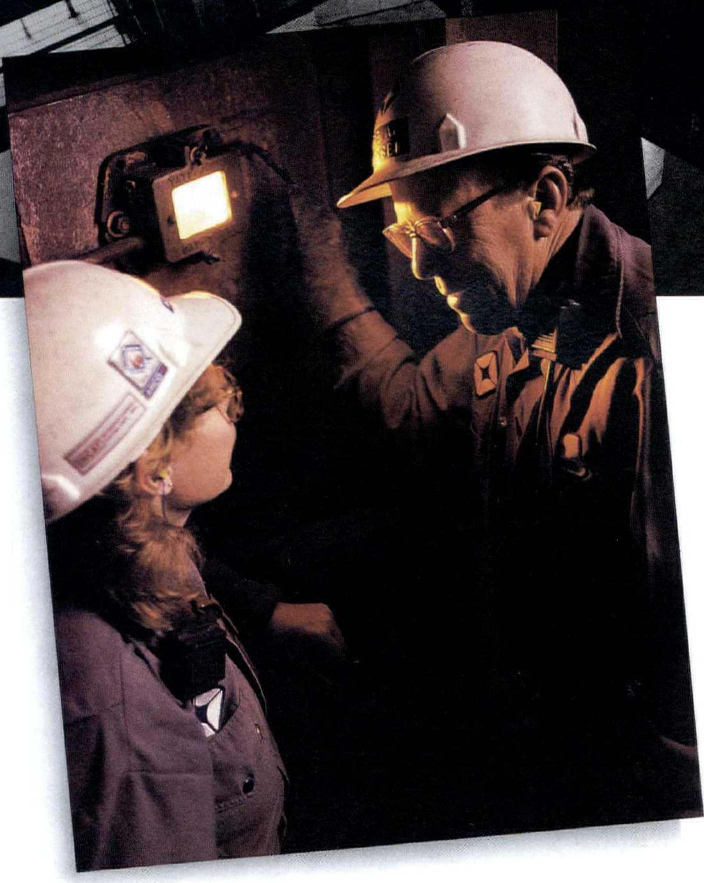
At Cherry Point, debottlenecking to increase capacity is continuing. Modifications to the coking unit and other systems will allow ARCO to run about 5,000 barrels more crude oil per day beginning in 1990.

ARCO Products has two ancillary businesses — calcined coke and cogeneration — that have been developed as part of the refinery operations, and which serve as profitable products in their own right.

Calcined coke, an upgraded by-product of the refinery operations, is produced at Cherry Point and in Wilmington, near the Los Angeles Refinery. Calcined coke production at Cherry Point averaged 2,155 tons per day in 1989; at the Wilmington calciner production rose 8 percent over 1988 levels to 1,036 tons per day. ARCO has become the world's leading supplier of calcined coke to

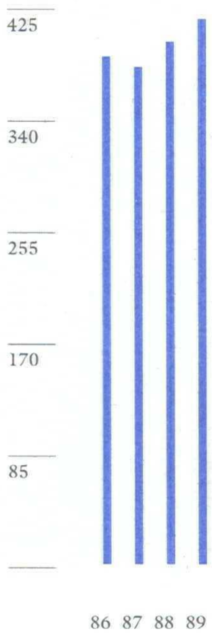


■ *ARCO's Los Angeles Refinery completed installation of a new state-of-the-art alkylation unit in 1989. Rated at 14,000 barrels per day, the unit manufactures a high octane gasoline blending component which is also a key ingredient in ARCO's EC-1 regular gasoline. Supervisor John Montgomery (right) and Operator John Hopkins take test samples at the unit.*



The rotary hearth used in the production of calcined coke at ARCO's Cherry Point refinery is immense, with a diameter of 80 feet and a design capacity of 1,200 tons per day. Supervisor Alison J. MacLean and Operator Adrian Heggem stop at a hearth viewing port. An upgraded by-product of the refinery operations, calcined coke is sold to the aluminum industry.

Crude Runs
thousand barrels/day



the aluminum industry as a result of its consistent coke quality.

At the Los Angeles Refinery, ARCO operates the largest cogeneration facility in the Western United States in a joint venture with Southern California Edison. In 1989 — its first full year of operation — the facility produced 346 megawatts per day. Additionally, the Wilmington operation includes a 34-megawatt facility.

Marketing ARCO Products has continued to maintain a position as the No. 1 marketer of gasoline in its five-state marketing area which is comprised of California, Oregon, Washington, Nevada and Arizona.

ARCO's gasoline sales are supplied by production from the Los Angeles and Cherry Point refineries, supplemented in Northern California by a supply agreement with the Tosco refinery.

ARCO's retail gasoline sales increased 9 percent. This high sales volume gave the ARCO's lessee dealers an average throughput of 213,000 gallons per month, more than twice the industry average. ARCO also outpaced the industry in total gasoline sales which grew 4 percent while general West Coast demand grew by approximately 1 percent.

ARCO gasoline is sold through 1,700 branded outlets including 722 that have am/pm® mini markets in the five-state region. These am/pm® stores make up the third largest convenience store chain in the ARCO marketing area, and their numbers are increasing at the rate of about 50 per year. In addition, am/pm® stores are proving to be popular internationally, having been introduced through licensing agreements in Japan and Taiwan. At the end of 1989, there were 40 am/pm® mini markets in the Far East. A new joint venture agreement will lead to the introduction of am/pm® mini markets in Spain and Portugal.

Another ARCO Products innovation, the PayPoint electronic payment system is featured at 1,100 locations, providing convenience to both ARCO and non-ARCO customers. In just three years, the PayPoint system has become the largest retailer point-of-sale network in the Western United States. Current projects are designed to further expand PayPoint to other non-ARCO merchants.

ARCO Products also markets motor fuels and lubricants in Brazil through a chain of more than 2,000 service stations, most of which are owned by individual operators. During 1989, ARCO's Brazilian subsidiary expanded the number of company-owned stations to 109.

ARCO Product's revenues from sales of jet fuels to airlines and the military increased 28 percent in 1989, reflecting both increased prices and volumes.

The future of ARCO Products Company remains bright. Gasoline demand growth in the five Western states continues to outpace the rest of the country. The Company's two refineries lead the industry in conversion of crude oil into higher value products. These products are sold through a marketing system which has clearly differentiated itself in a highly competitive business.

0200383

	1989	1988	1987	1986
Earnings — millions	**$ 266**	$ 308	$ 340	$ 352
Total assets — millions	**$2,401**	$2,418	$2,523	$2,610
Additions to fixed assets — millions	**$ 43**	$ 53	$ 26	$ 31
TAPS tariff — dollars/barrel	**$ 3.11**	$ 3.11	$ 3.93	$ 4.50
TAPS throughput — thousand barrels/day	**1,880**	2,034	1,959	1,819
Kuparuk pipeline throughput — thousand barrels/day	**310**	302	283	273

ARCO TRANSPORTATION COMPANY

■ ARCO Transportation Company manages the company's 21.3 percent interest in the Trans Alaska Pipeline System (TAPS), a 57 percent interest in Kuparuk Transportation Company, a fleet of 10 ocean-going tankers, marine terminals in Long Beach and Houston and a network of crude oil, petroleum product, petrochemical and natural gas pipelines in the West Coast and Midcontinent areas.

In 1989, ARCO Transportation's earnings were 13.6 percent below last year's results. The decline was principally attributed to lower TAPS volumes and higher maintenance and operating expenses. The higher expenses primarily resulted from the enhancement of oil spill prevention and response capabilities and from increased corrosion monitoring and repairs.

ARCO Transportation has excellent oil spill prevention and response policies and procedures in place. Following the grounding of the Exxon Valdez in Prince William Sound, ARCO undertook an extensive review of its existing operating policies and contingency plans in an effort to ensure continued efficiency and effectiveness in the areas of oil spill prevention and response.

TAPS, which transports crude oil and natural gas liquids from the North Slope of Alaska to the port of Valdez, had a throughput average of 1.88 million barrels per day.

The ARCO Marine, Inc., fleet of 10 ocean-going tankers safely delivered 209 million barrels of North Slope crude oil from Valdez, Alaska, to ARCO's refineries in Washington and California and to commercial customers.

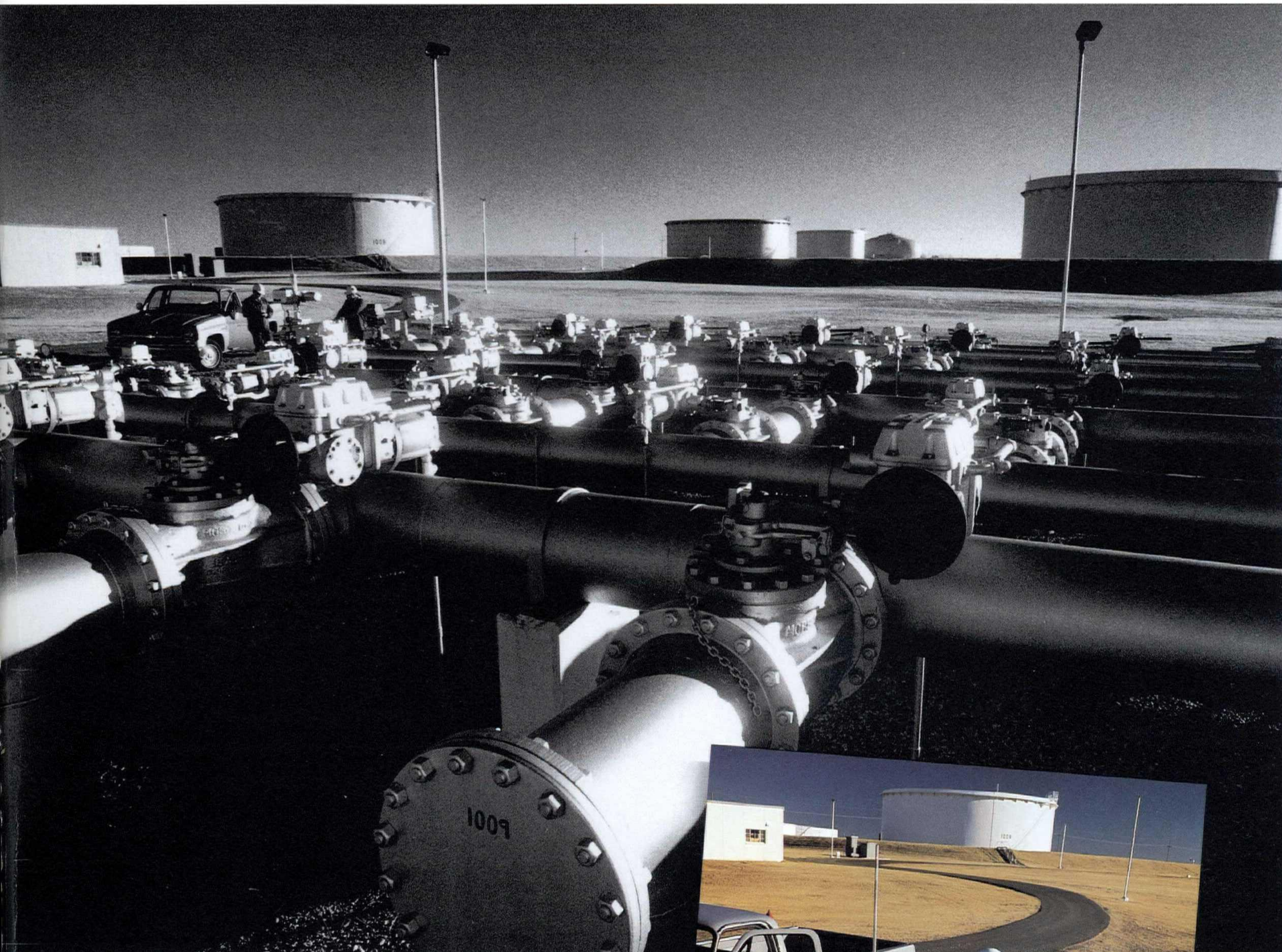
Combined, the marine fleet and the Alaskan pipelines are an efficient link between Alaskan production and ARCO's West Coast refining and marketing operations. In 1989, they contributed 80 percent of ARCO Transportation's earnings.

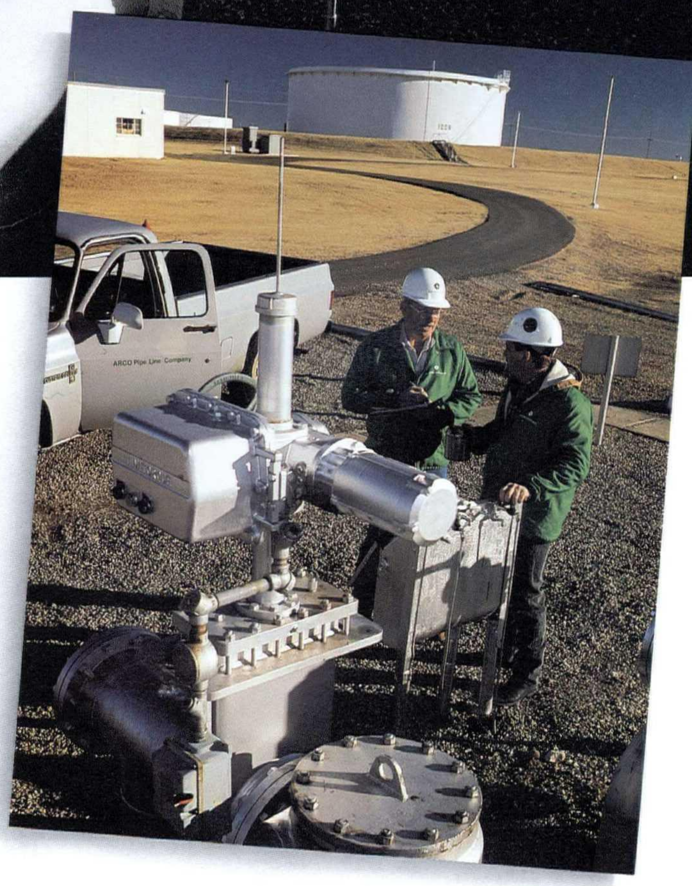
In addition, ARCO Transportation continued its increased focus on commercial opportunities.

With a product terminal and storage facilities purchased in late 1988, ARCO Terminal Services Corporation increased its revenues from crude and product handling to $23.3 million, a 52 percent increase from 1988.

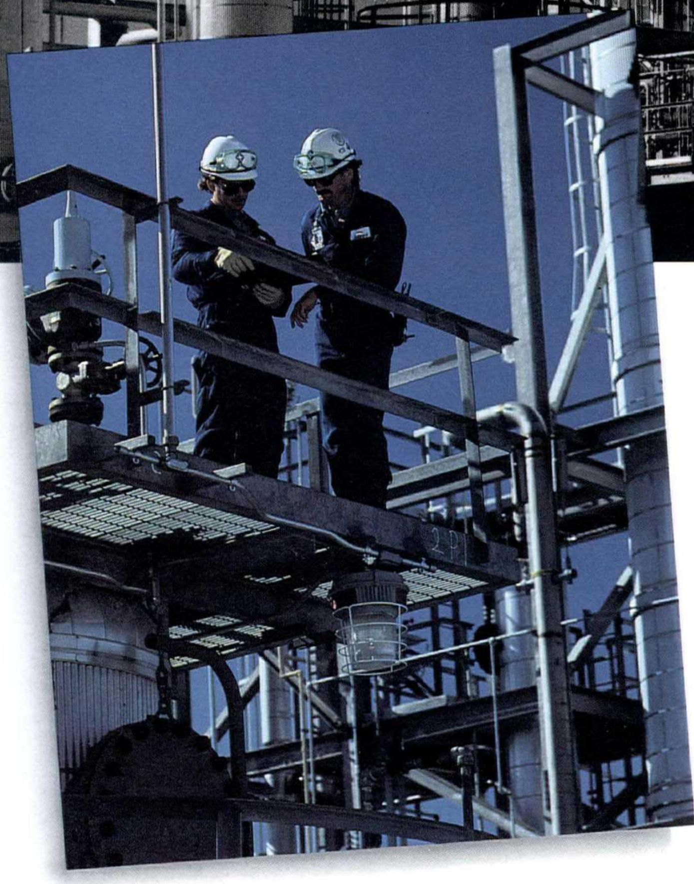
Following the 1988 reversal of ARCO Pipe Line Company's (APL) Wichita Falls to Houston crude line, APL transported 38,000 barrels per day of imported and offshore crude to midcontinent refineries in 1989.

Plans are under way to link APL's marine terminal at Texas City, Texas, to its midcontinent pipeline system and to expand the capacity of the system to transport approximately 200,000 barrels per day of waterborne crude through the Cushing, Oklahoma, pipeline network. In addition, APL has begun construction of six new petrochemical pipelines in the Houston area.





■ *ARCO Transportation's pumping station in Cushing, Oklahoma, is at the distribution hub for midcontinent refineries. With shifting markets and supply, the lines that once moved crude oil out of the area have been reversed and now bring imported and offshore crude oil into the midcontinent area. Pump Station Foreman Glenn Burditt (left) and Dusty Granstaff, station operator, record movements through the system.*



Operator John Hayward and John Lloyd, maintenance, take readings of an overhead pressure valve at ARCO Chemical's new butanediol plant in Channelview, Texas. Utilizing a new, acquired technology, the butanediol process allows ARCO Chemical to further expand its propylene oxide derivatives business. Products from the plant will be used in automotive parts, plastic housings for consumer appliances and low-toxicity solvents.

	1989	1988	1987	1986
Earnings — millions	**$ 405**	$ 494	$ 257	$ 143
Total assets — millions	**$2,655**	$2,548	$2,534	$1,450
Additions to fixed assets — millions	**$ 262**	$ 245	$ 295	$ 167
Sales and other operating revenues — millions	**$2,663**	$2,700	$1,952	$1,541
Propylene oxide and derivatives — million pounds	**2,586**	2,812	2,334	1,986
TBA and derivatives — million gallons	**912**	917	794	680
Styrene monomer and derivatives — million pounds	**1,478**	1,665	1,290	1,258

* These statistics refer only to ARCO Chemical Company and do not include statistics related to chemical assets retained by ARCO and other adjustments included in the intermediate chemicals and specialty products segment, such as corporate-allocated interest expense and minority interest.

ARCO CHEMICAL COMPANY

■ The year 1989 was a successful one for ARCO Chemical Company (NYSE: RCM), although financial performance did not match the record level achieved in 1988. ARCO holds an 83.4 percent interest in ARCO Chemical Company, which is the world's leading producer of propylene oxide, tertiary butyl alcohol (TBA) and methyl tertiary butyl ether (MTBE) and a leading merchant marketer of styrene.

The company experienced a sharp drop in styrene prices as worldwide supply and demand came into balance and styrene feedstock costs increased. A decrease in economic activity in key U.S. markets also had a significant impact on overall demand. On the positive side, margins on non-styrenic products were improved from 1988.

In 1989, ARCO Chemical moved forward with its plans to meet long-term growth in demand for its core products — propylene oxide, TBA, and styrene — and their derivatives. The company's strategic focus continues to be on those businesses where it has significant technological or cost advantages, strong market positions, or unique products. ARCO Chemical intends to invest approximately $2.5 billion over the next five years to essentially double its size.

By 1994, the company expects to increase propylene oxide capacity by approximately one billion pounds to almost four billion pounds. This expansion includes major construction projects in Texas and, through a joint venture, in South Korea.

In 1989, ARCO Chemical entered into an agreement to purchase the worldwide urethane polyols and propylene glycol businesses of Union Carbide Chemicals and Plastics Company Inc. The company must wait for completion of regulatory review prior to integrating these businesses.

Demand for MTBE, a high-octane gasoline additive, was strong in both Europe and the United States, and margins improved significantly. This growth is being driven by increased demand for unleaded fuels and MTBE's positive impact on reducing emissions. Market successes with reformulated, environmentally improved gasolines, like ARCO's EC-1, should increase demand further.

In a move to expand its derivatives business, the company in early 1990 completed a butanediol plant that uses new, acquired technology to produce products used in manufacturing automotive parts, plastic housings for consumer appliances, and low-toxicity solvents.

For more information, a copy of ARCO Chemical's annual report can be requested by writing to Investor Relations, ARCO Chemical Company, 3801 West Chester Pike, Newtown Square, PA 19073-2837.

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	1989	1988	1987	1986
Earnings — millions	**$ 374**	$ 543	$ 123	$ 128
Total assets — millions	**$1,267**	$ 913	$ 750	$ 597
Additions to fixed assets — millions	**$ 176**	$ 63	$ 29	$ 18
Sales and other operating revenues — millions	**$5,358**	$4,696	$3,931	$3,010
Refinery crude runs — thousand barrels/day	**236.4**	247.3	240.4	277.7
Petroleum product sales — thousand barrels/day	**286.7**	249.6	274.0	271.7
Ethylene and propylene sales — million pounds	**4,903**	5,294	4,830	3,993

* This table represents stand-alone financial and statistical information of Lyondell Petrochemical Company.

LYONDELL PETROCHEMICAL COMPANY

■ ARCO established Lyondell Petrochemical Company (NYSE: LYO) as a wholly-owned subsidiary in 1988. In January 1989, ARCO completed the initial public offering of a majority interest in Lyondell common stock and now owns 49.9 percent of its stock.

Headquartered in Houston, Lyondell is a major merchant supplier of olefins — primarily ethylene, propylene, butadiene and butylenes. The company also produces methanol, aromatics and a variety of specialty products. Lyondell is also a major merchant supplier of refined petroleum products including gasoline, heating oil, jet fuel and lubricants.

Lyondell's earnings in 1989, compared to 1988, were affected by several major factors. These included lower ethylene margins, especially towards year end, and higher operating costs which included major maintenance turnarounds on Lyondell's two olefins plants as well as unscheduled weather-related maintenance. In addition, earnings were affected by higher interest expense, increased administrative expenses associated with becoming a public company, and lower refining margins.

In 1989, the Company completed a major expansion of its two olefins plants increasing ethylene capacity by approximately 25 percent, lowering unit production costs, and improving the output of propylene and other related by-products.

In February 1990, Lyondell acquired Rexene Products Company's polyethylene and polypropylene plants in Bayport, Texas.

For additional information, a copy of Lyondell's 1989 Annual Report can be obtained by writing to Investor Relations, Lyondell Petrochemical Company, 1221 McKinney, Houston, TX 77010.

COMMUNITY INVOLVEMENT

▪ The dedicated, personal involvement of ARCO people and a strategically focused ARCO Foundation grant program give ARCO a meaningful and highly visible role in the communities where its operations are concentrated.

The ARCO Foundation program invested approximately $16 million during 1989 in programs designed to benefit the community both near-term and into the future. Through the Foundation, ARCO dollars went to education, community and cultural activities.

Employee involvement is a tradition at ARCO and the Foundation program supported these voluntary efforts with $2.3 million, or 14 percent of its total expenditures, in employee matching grants and grants to organizations in which employees are giving their volunteer time.

With a mission to help shape the kind of society in which we live and work, the Foundation program has targeted an ever-increasing amount of its grant money for education. A total of $5.5 million was awarded to education in 1989.

As part of ARCO's education program, a record $1.1 million was awarded to 28 colleges and universities in 1989 to encourage retention of under-represented minority students pursuing science careers, primarily in engineering. For the first time in 1989, ARCO specified that the grants be designated for programs that emphasize "community building" and encourage the development of student study centers, math/science workshops and other learning activities.

ARCO's support of educational programs covers all ages from pre-school through college, and at most every level, ARCO employees are working as volunteers and adding face-to-face evidence of their company's interest in the community. Through a program called JEP (the Joint Education Project), ARCO volunteers tutor public elementary school students in math and other subjects and teach computer classes. In a special life science project in 1989, these ARCO tutors helped their 1,600-plus students discover the world of insects, the "Guardians of the Garden," which was also the theme of ARCO's award-winning float in the 1990 Tournament of Roses Parade.

A major supporter of Junior Achievement (JA), ARCO is providing elementary through high school students with a greater understanding of business and economics. In cities throughout the country, ARCO employees serve as JA advisors and consultants. ARCO Chairman Lodwrick M. Cook was national chairman of JA in 1989 and chairman of its National Business Leadership Conference.

In keeping with its concern for community, ARCO spent over $125 million of its total purchasing budget with minority-owned vendors and contractors in 1989.

ARCO is also committed to providing equal opportunity for all employees. The company seeks out qualified female and minority candidates in the communities where it operates, and while the number of employees at ARCO declined dramatically during the 1980s, the percentage of minority and female employees increased.

Millions of dollars except per share amounts	1989(1)	1988	1987	1986	1985
Sales and other operating revenues — including excise taxes	**$16,021**	$18,324	$16,977	$15,109	$22,682
Income from continuing operations	**$ 1,953**	$ 1,583	$ 1,224	$ 615	$ 333
Earned per share — continuing operations	**$ 11.26**	$ 8.78	$ 6.68	$ 3.38	$ 1.55
Cash dividends per common share	**$ 4.50**	$ 4.00	$ 4.00	$ 4.00	$ 3.75
Total assets	**$22,261**	$21,514	$22,890	$21,913	$20,802
Long-term debt and capital lease obligations	**$ 5,313**	$ 5,665	$ 6,314	$ 6,968	$ 6,050

(1) See Notes 2 and 20 of Notes to Consolidated Financial Statements.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Results of Consolidated Operations

In 1989, the Company's return on stockholders' equity increased to 30.5 percent from 26.1 percent in the prior year and 22.0 percent in 1987. These returns are an indication of the Company's improved performance during the past three years. This continued improvement was the result of the Company's ongoing focus on markets where it has established a competitive advantage, the quality of the Company's assets in each of its business segments, the Company's continuing actions to manage its costs, and the Company's utilization of the capital markets, such as its initial public offering of common stock of Lyondell Petrochemical Company ("Lyondell") in January 1989. The fluctuations in oil prices experienced in recent years continue to impact the Company's operations. The Company's oil and gas producing operations benefited from higher oil prices in 1989 while the Company's refining and marketing operations were able to maintain their margins.

In 1989, the Company's net income was $1,953 million, or $11.26 per share, an increase of 23 percent and 28 percent, respectively, from $1,583 million, or $8.78 per share, earned in 1988. The 1989 results included a $634 million after-tax gain from ARCO's sale of a majority interest in Lyondell in January 1989. Partially offsetting this gain were $345 million in first quarter after-tax charges for future environmental expenses, provisions for the anticipated loss associated with the planned sale of ARCO Solar, Inc., the writedown on the final year of the abatable preferred stock received in the 1985 sale of ARCO's aluminum assets to Alcan, and some tax-related provisions.

In 1989, higher crude oil prices and increased sales volumes for natural gas, refined products and coal were offset by higher refining and marketing operating costs, lower ARCO Chemical Company ("ARCO Chemical") sales volumes, lower margins for styrene and the effect of ARCO's reduced ownership interest in Lyondell. Results in 1989 included $43 million of after-tax gains resulting from settlements of natural gas contract disputes, increased interest income resulting from the investment of the proceeds from the sale of Lyondell's common stock, and reduced interest expense resulting from lower average debt outstanding during the year.

In 1988, the Company's net income was $1,583 million, or $8.78 per share, an increase of 29 percent and 31 percent, respectively, from the $1,224 million, or $6.68 per share, earned in 1987. Increases in net income from the Company's downstream operations more than offset decreases in net income from the Company's oil and gas producing operations. The effects of increased sales volumes and margins for almost all petrochemical products and increased refining margins were partially offset by the effects of decreases in crude oil and natural gas liquids prices and higher exploration expenses in 1988. In addition, lower interest expense resulting from lower debt levels in 1988 and a reduction in the federal income tax rate from 40 percent to 34 percent resulting from the Tax Reform Act of 1986 contributed to the higher net income in 1988 compared to 1987.

Net income in 1988 included a $110 million net after-tax gain as a result of the sale of ARCO's shares of Britoil plc, $30 million of after-tax gains from property sales and $22 million of after-tax gains from the settlement of natural gas contract disputes. However, these gains were largely offset by charges relating to the writedown of abatable preferred stock, the early redemption of a debt issue, the move of ARCO International Oil and Gas Company's headquarters from Los Angeles to Plano, Texas, and future environmental clean-up costs.

Results in 1987 included a $185 million after-tax gain as the result of the sale by ARCO Chemical of its common stock in an October 1987 initial public offering and $60 million of after-tax gains resulting from the settlement of natural gas contract disputes and from property sales net of certain nonrecurring charges. These gains were partially offset by a $53 million after-tax charge incurred as a result of ARCO's withdrawal from a proposed natural gas pipeline project in Alaska, a $45 million after-tax charge for interest on unsettled tax issues and a $39 million after-tax charge for the early redemption of debt. In addition, the Company recorded a $95 million after-tax charge to provide for future environmental clean-up costs associated primarily with chemical segment assets retained by ARCO and certain assets acquired in the 1969 merger with Sinclair Oil but never operated by ARCO.

Income from equity investments was $240 million in 1989, $48 million in 1988, and $65 million in 1987. The increase in 1989 resulted from the inclusion of ARCO's interest in the net income of Lyondell, which has been accounted for as an equity investment since ARCO's sale of a majority interest in January 1989.

Sales and other operating revenues were $16.0 billion in 1989, $18.3 billion in 1988 and $17.0 billion in 1987. The decline in 1989 sales resulted from the exclusion of Lyondell from ARCO's consolidated financial statements. Excluding the impact of Lyondell on 1988 sales, ARCO's sales and revenues increased $1,660 million in 1989 from 1988 as a result of higher crude oil and refined product prices, sales to Lyondell, which have been included in ARCO's sales since Lyondell became an equity investment in January 1989, and higher sales volumes for coal and refined products. The increase in 1988 revenues over 1987 revenues primarily resulted from higher chemical products sales volumes and prices, partially offset by lower crude oil and natural gas liquids prices.

Costs and other operating expenses were $9.0 billion in 1989 and $10.7 billion in 1988 and 1987. The decline in 1989 operating expenses resulted from the exclusion of Lyondell from ARCO's consolidated financial statements in 1989. Excluding the impact of Lyondell on 1988 operating expenses, ARCO's operating expenses increased $1,616 million in 1989 from 1988 as a result of increased crude oil trading costs, purchases from Lyondell, which have been included in ARCO's expenses since Lyondell became an equity investment in January 1989, increased refining and marketing operating costs, charges for future environmental expenses and provisions for the anticipated loss associated with the planned sale of ARCO Solar, Inc.

Selling, general and administrative expenses were $1,476 million in 1989, $1,408 million in 1988 and $1,108 million in 1987. Excluding the impact of Lyondell on 1988 selling, general and administrative expenses, ARCO's expenses increased $156 million in 1989 from 1988. The increase in 1989 resulted from many factors. ARCO Products Company's selling expenses were higher as a result of retail marketing costs associated with its service stations, additional am/pm® sites, and Brazilian operations. ARCO Chemical's selling expenses increased due to continued expansion. ARCO Coal Company's selling expenses were higher due to expansion of Australian operations. ARCO Oil and Gas Company's selling expenses increased due to higher natural gas sales volumes. The increase in selling, general and administrative expenses in 1988 from 1987 resulted primarily from increased costs associated with ARCO Chemical's expansion, primarily of its overseas operations, increases in ARCO Coal Company's selling costs due to higher Australian export sales resulting from the doubling of its interests in two of its mines, and higher insurance and personnel related costs.

Taxes other than excise and income taxes were $943 million in 1989, $665 million in 1988, and $702 million in 1987. The increase in 1989 taxes resulted from a Brazilian value-added tax which replaced a similar tax which in prior years was included in the petroleum product purchase price, an increase in production taxes associated with higher crude oil prices in 1989, and an increase in the rate for Alaskan production taxes due to the revision of the Economic Limit Factor. The decrease in 1988 taxes primarily resulted from a decline in production taxes associated with lower crude oil prices in 1988 compared to 1987. Excise taxes were $670 million in 1989, $698 million in 1988, and $547 million in 1987. The decrease in 1989 excise taxes occurred because of the tax-exempt status in 1989 of sales of jet fuel to the Department of Defense, but was partially offset by increased gasoline sales volumes. The increase in 1988 excise taxes from 1987 was primarily due to a change in the federal law which transferred the responsibility for collecting excise taxes on gasoline and other distillates from the wholesaler to the refiner/producer, increases in gasoline sale volumes and increases in the state and local excise tax rates in some states.

Depreciation, depletion and amortization expense was $1,748 million in 1989, $1,704 million in 1988, and $1,661 million in 1987. Excluding the impact of Lyondell on 1988 depreciation and amortization expense, the increase in ARCO's 1989 expense was $60 million. This increase results primarily from depreciation and depletion associated with the acquisition of Tenneco's West Coast oil and gas properties in the fourth quarter of 1988. The increase in 1988 expense from 1987 was primarily due to increases in depreciation expense for ARCO Chemical and ARCO Products Company. ARCO Chemical started up its chemical plant located in Fos-sur-Mer, France and made additions to its existing domestic and overseas plants. ARCO Products Company's new cogeneration plant and other additions to the Los Angeles refinery as well as am/pm® mini markets added during the year resulted in its increased depreciation expense. In addition, increases in depletion associated with increased Alaskan and foreign production in 1988 were partially offset by reduced depletion associated with decreased Lower 48 production.

Results of Segment Operations

ARCO's oil and gas exploration and production operations had after-tax earnings of $887 million, an increase of 64 percent from $542 million in 1988. Higher crude oil prices and natural gas sales volumes, partially offset by higher operating costs and taxes, including Alaskan production taxes, were the primary reasons for the increased earnings in 1989. The 1989 results also included $43 million of after-tax gains as a result of settlements of natural gas contract disputes.

In 1988, oil and gas after-tax earnings declined $293 million, or 35 percent, from $835 million in 1987 as a result of a decrease in the Company's average domestic crude oil sales price and higher operating and exploration costs. The earnings in 1988 included $30 million of after-tax gains from property sales and $22 million of after-tax gains from settlements of natural gas contract disputes, partially offset by an $18 million after-tax charge in connection with the move of ARCO International Oil and Gas Company's headquarters from Los Angeles to Plano, Texas. In 1987, $60 million of after-tax gains from the settlement of natural gas contract disputes and from property sales, net of certain nonrecurring charges, were nearly offset by a $53 million after-tax charge associated with the Company's withdrawal from a natural gas pipeline project in Alaska.

As previously discussed, fluctuating crude oil prices have had a significant impact on earnings over the past three years. The Company's domestic composite average price for crude oil was $13.13 per barrel in 1989, $9.90 per barrel in 1988, and $12.56 per barrel in 1987. Average domestic natural gas liquids prices were $10.38 per barrel in 1989, $9.25 per barrel in 1988, and $10.43 per barrel in 1987. Average domestic natural gas prices were $1.67 per thousand cubic feet in 1989, $1.68 per thousand cubic feet in 1988, and $1.63 per thousand cubic feet in 1987.

Domestic natural gas sales totaled 1.529 billion cubic feet per day in 1989, 1.389 billion cubic feet per day in 1988 and 1.272 billion cubic feet per day in 1987. The increase in 1989 was the result of a full year of production from the Wilburton gas field in southeastern Oklahoma and production from new wells in the Gulf of Mexico. The increase in 1988 over 1987 was due to weather-related demand increases and the startup of new production from the Wilburton gas field.

Worldwide petroleum liquids production of the Company averaged 730,100 barrels per day in 1989, 737,800 barrels per day in 1988, and 728,200 barrels per day in 1987. The decrease in 1989 production was the result of a decline in Prudhoe Bay production primarily resulting from production curtailments related to the EXXON VALDEZ oil spill, natural field decline and facility downtime for maintenance. This decrease was partially offset by a 15,000 barrel per day increase in Lower 48 production, resulting from the addition of the West Coast oil and gas properties acquired from Tenneco which were fully integrated into ARCO Oil and Gas Company during 1989. The increase in 1988 production compared to 1987 was the result of a 16,900 barrel per day increase in Alaskan production, partially offset by a decrease in Lower 48 production due to natural decline from mature fields. ARCO's share of production from its largest Alaskan field, Prudhoe Bay, was 294,300 barrels of petroleum liquids per day in 1989, compared to 320,600 barrels per day in 1988 and 324,900 barrels per day in 1987. The decrease in 1989 resulted from production curtailments related to the EXXON VALDEZ oil spill, natural field decline and facility downtime for maintenance. The decrease in 1988 compared to 1987 resulted from natural field decline, facility downtime for maintenance and transportation-related delays.

The Company's share of petroleum liquids production from the Kuparuk River field has increased over each of the last three years to 147,100 barrels per day in 1989 from 146,600 barrels per day in 1988 and 123,700 barrels per day in 1987. The increase in net production in 1988 was due to the drilling of an additional 36 development wells and a well stimulation program covering 47 wells. In addition, the Company's net production also rose due to the end of a production payback of 14,000 barrels per day to other Kuparuk River Field owners in the first quarter of 1988. The Company's net petroleum liquids production from Lisburne, a reservoir underlying the Prudhoe Bay field, was 13,500 barrels per day in 1989, 14,600 barrels per day in 1988 and 15,500 barrels per day in 1987.

Foreign petroleum liquids production averaged 70,100 barrels per day in 1989, 63,600 barrels per day in 1988 and 63,200 barrels per day in 1987. The increase in 1989 was due to higher Indonesian production as a result of the startup of the Kurau field in 1989 and higher production from the United Kingdom as a result of properties acquired from Tricentrol PLC. The slight increase in 1988 from 1987 was due to higher production in the United Kingdom resulting from the Tricentrol acquisition partially offset by a lower share of Indonesian production based on cost recovery provisions in ARCO's contracts, as well as natural field decline in Indonesia.

After-tax earnings from the Company's coal operations were $92 million in 1989, $79 million in 1988 and $67 million in 1987. The higher earnings in 1989 resulted from the full-year impact of its increased ownership in two Australian mines and increased domestic sales from the Company's Black Thunder mine in Wyoming. The increase in 1988 earnings from 1987 was primarily due to ARCO's increased ownership in two of its Australian coal mines, which took place in the second quarter of 1988, as well as a general strengthening in both domestic and international coal markets. The 1987 results also included a $7 million net after-tax gain from the settlement of a coal contract dispute.

After-tax earnings for refining and marketing operations were $291 million in 1989, $368 million in 1988 and $150 million in 1987. The decreased earnings in 1989 resulted primarily from increased operating costs and a $60 million after-tax charge for future environmental clean-up costs, partially offset by higher refined product prices and sales volumes. The higher level of earnings in 1988 compared to 1987 was primarily the result of higher margins resulting from lower feedstock costs. West Coast petroleum products sales totaled 435,500 barrels per day in 1989, 418,800 barrels per day in 1988 and 406,200 barrels per day in 1987. The progressive increase in sales from 1987 resulted from higher demand for light refined products that the Company was able to meet by achieving refinery utilization rates in excess of 100 percent at its two West Coast refineries.

After-tax earnings for the transportation operations were $266 million in 1989, $308 million in 1988 and $340 million in 1987. The declining earnings in 1989 and 1988 compared to 1987 were the result of a lower tariff for the Trans Alaska Pipeline System based on a tariff settlement agreement approved by the Federal Energy Regulatory Commission in 1986. In addition, 1989 earnings included higher oil spill contingency plan costs and decreased throughput primarily as a result of a decline in Prudhoe Bay production.

After-tax earnings for the Company's intermediate chemicals and specialty products segment were $336 million in 1989, $400 million in 1988 and $404 million in 1987. The segment primarily consists of ARCO Chemical, an 83.4 percent owned subsidiary of the Company. ARCO Chemical's earnings decreased in 1989 as a result of lower sales volumes and lower styrene margins, which were partially offset by margin improvements in its other products. Earnings from ARCO Chemical's operations increased in 1988 as a result of higher sales volumes and margins for propylene oxide, styrene and methyl tertiary butyl ether. The 1987 earnings included a $185 million after-tax gain as a result of the initial public offering by ARCO Chemical of approximately 20 percent of its common stock, a $10 million after-tax charge for environmental clean-up costs associated with assets transferred to ARCO Chemical by ARCO in June 1987 and an additional $31 million after-tax charge for clean-up costs associated with chemical segment assets retained by ARCO.

ARCO's equity ownership interest in Lyondell's net income was $214 million for 1989 and its equity ownership interest at year-end 1989 was 49.9 percent. In 1988 and 1987 Lyondell was owned 100 percent by ARCO and earned $529 million and $132 million after tax, respectively. Higher margins and volumes for ethylene and propylene were the primary reasons for Lyondell's earnings improvement in 1988 over 1987. Refining margins, though partially offset by lower volumes, also improved in 1988. The 1987 earnings included a $10 million after-tax charge for environmental clean-up costs.

Unallocated and other expenses after tax totaled $250 million in 1989, $104 million in 1988 and $126 million in 1987. The 1989 results included a $120 million after-tax charge for future environmental clean-up costs and a $25 million after-tax charge for the final year of abatable preferred stock associated with the prior sale of aluminum assets to Alcan. In addition, 1989 results included higher net investment income and lower insurance expenses, partially offset by provisions for the anticipated loss associated with the planned sale of ARCO Solar, Inc., which is scheduled to close in the first quarter of 1990. The 1988 results included the $110 million after-tax gain on the sale of Britoil plc stock, a $75 million after-tax charge relating to the write-down of abatable preferred stock and a $16 million after-tax charge associated with the early redemption of a debt issue. The 1987 results included a $39 million after-tax charge for the early redemption of $950 million of debt and a $33 million after-tax charge to reserves for future environmental clean-up costs associated with certain assets acquired in the 1969 merger with Sinclair Oil.

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Financial Position

Cash flows from operating activities were $3,729 million in 1989, $3,551 million in 1988 and $3,716 million in 1987. The net cash used in investing activities was $1,863 million and primarily included expenditures for additions to fixed assets (including dry-hole costs) of $2,105 million, proceeds from asset sales of $149 million, a net increase in short-term investments of $814 million and an aggregate of $1,241 million in net proceeds from the sale of a majority interest in Lyondell and a dividend paid to ARCO just prior to the public stock offering. The proceeds from asset sales in 1989 resulted primarily from the sale of a number of oil and gas properties.

The net cash used in financing activities was $1,541 million in 1989 and primarily included repayments of long-term debt of $486 million, proceeds of $459 million from the issuance of long-term debt, an increase of $85 million in the Company's short-term debt position, dividend payments of $760 million and treasury stock purchases by ARCO and ARCO Chemical of $810 million.

Cash and cash equivalents and short-term investments totaled $3,009 million at year end 1989 and represent an increase of $1,104 million over year end 1988. Short-term borrowings were $577 million at year end 1989.

The Company has announced a capital spending program that includes $2.7 billion for additions to fixed assets in 1990. Future capital expenditures remain subject to business conditions affecting the industry, particularly changes in price and demand for crude oil, natural gas and petroleum products and any changes in the tax laws.

The Company and certain wholly-owned subsidiaries maintained bank credit facilities of $3.2 billion during 1989. Included in this total is a credit facility negotiated on behalf of a subsidiary that is denominated in pounds sterling. At December 31, 1989, there was no outstanding balance under these committed credit facilities. ARCO Chemical maintains its own credit facility which is not guaranteed by ARCO. At December 31, 1989, there were no borrowings against the ARCO Chemical facility.

It is expected that future cash requirements for capital expenditures, dividends, debt repayments and any treasury stock purchases will come from cash generated from operating activities, future borrowings and existing cash balances.

The Company is subject to federal, state and local environmental laws and regulations which require the Company to remove or mitigate the effect on the environment of the disposal or release of certain chemical and petroleum substances at various sites, including Superfund sites, oil fields, service stations, terminals and other operating and closed facilities. The Company is currently participating in environmental assessments and cleanups at numerous sites under these laws, and may in the future be involved in additional environmental assessments and cleanups. The Company continues to estimate the amount of these costs in periodically establishing reserves based on progress made in determining the magnitude of clean-up costs, the timing and extent of remedial actions required by the applicable governmental authorities, the amount of the Company's liability in proportion to the responsible parties and the extent, if any, to which such costs are recoverable from insurance. As the scope of the Company's obligations becomes more clearly defined, there may be changes in these estimated costs, which might result in future charges against the Company's earnings. During 1989, the Company added $300 million pre-tax to its reserves relating to future environmental clean-up costs. At December 31, 1989, such reserves totaled $614 million.

In January 1989, the Company's Board of Directors authorized a new Common Stock buy-back program and in July 1989, the Company completed a special commission-free purchase offer to holders of fewer than 100 shares of ARCO Common Stock (odd-lot program). Under the two programs the Company repurchased for its treasury approximately 8.3 million shares for $827 million in 1989, of which approximately 552,000 shares were purchased under the odd-lot program. The ongoing repurchase program will be funded by cash from operating activities.

By Board authorization, the Company cancelled 50 million shares of Common Stock held in treasury, effective December 31, 1989, which had no net effect on stockholders' equity. The aggregate acquisition cost of the treasury shares cancelled was $3,472 million.

At their January 1990 meeting, the Company's Board of Directors approved a 12½ cent increase in the quarterly dividend payable to holders of Common Stock, raising the quarterly dividend from $1.125 to $1.25 per share.

In January 1990, the Company announced that it was calling for early redemption on March 1, 1990, the $300 million of 11⅛ percent debentures due 2015 and the $200 million of 11 percent debentures due 2013.

Proceeds from the Lyondell stock offering as well as from certain other asset sales will be used for the redemption. As a result of these redemptions, net income for the first quarter of 1990 will be reduced by approximately $30 million. The Company anticipates a reduction in after-tax interest expense resulting from the early redemption of these debentures to be approximately $29 million in 1990 and $35 million in 1991 and beyond. As a result of the early and scheduled redemptions during 1990, the Company expects to reduce its long-term debt outstanding by $704 million. At December 31, 1989, the Company's long-term debt was $5,991 million.

On January 30, 1990, ARCO Chemical issued $225 million of 9.80 percent debentures due 2020. The proceeds from the debentures are to be used for general corporate purposes. The securities were offered under a shelf registration previously filed with the Securities and Exchange Commission covering up to $450 million of debt securities. ARCO Chemical previously issued $100 million of First Series Medium-Term Notes in August 1988 and $125 million of 9.35 percent debentures due 2019 in October 1989 under the shelf registration.

The Company has not yet adopted the provisions of Statement of Financial Accounting Standards (SFAS) No. 96, "Accounting for Income Taxes." SFAS No. 96 does not require, but does allow, restatement of financial statements for fiscal years prior to the year of adoption, and the initial application must be as of the beginning of the Company's fiscal year. The adoption of SFAS No. 96 will require the Company to change to the liability method for financial accounting and reporting for income taxes. The Company currently uses the deferred method. SFAS No. 96 also requires that a deferred tax liability or asset be adjusted for the effect of a change in tax laws or rates. Under the Tax Reform Act of 1986 corporate tax rates were lowered; therefore, deferred taxes previously charged to income at higher rates will be payable at a lower rate. In applying SFAS No. 96, the Company currently estimates that its deferred tax liability would be reduced by approximately $250 million. The resulting benefit will be recorded through the income statement and reported as a cumulative effect of a change in accounting principle.

Effects of Inflation

While the annual rate of inflation remained moderate during the three-year period ended December 31, 1989, the Company continued to experience certain inflationary effects. The Company will achieve some benefits by using current, inflated dollars to satisfy its debt obligations and other monetary liabilities, because the Company's monetary assets are less than its monetary liabilities at December 31, 1989.

Based on the age of the Company's property, plant and equipment, it is estimated that the replacement cost of those assets is greater than the historical cost reflected in the Company's financial statements. Accordingly, the Company's depreciation, depletion and amortization expense for the three years ended December 31, 1989 would be greater if the expense were stated on a current cost basis.

To the extent that the Company uses the last-in, first-out (LIFO) inventory accounting method, the replacement cost of inventory is greater than the historical cost reflected on the Company's balance sheet, while the costs of products sold reflected in the Company's income statement approximate current cost.

	For the year ended December 31		
Millions of dollars except per share amounts	1989	1988	1987
Revenues			
Sales and other operating revenues — including excise taxes	**$16,021**	$18,324	$16,977
Income from equity investments	**240**	48	65
Interest	**355**	290	288
Other revenues	**199**	206	249
	16,815	18,868	17,579
Expenses			
Costs and other operating expenses	**8,975**	10,731	10,724
Selling, general and administrative expenses	**1,476**	1,408	1,108
Taxes other than excise and income taxes	**943**	665	702
Excise taxes	**670**	698	547
Depreciation, depletion and amortization	**1,748**	1,704	1,661
Interest	**799**	842	991
	14,611	16,048	15,733
Income before gain on subsidiary stock transactions	**2,204**	2,820	1,846
Gain on subsidiary stock transactions	**957**	—	322
Income before income taxes and minority interest	**3,161**	2,820	2,168
Provision for taxes on income	**1,142**	1,144	932
Minority interest in earnings of subsidiary	**66**	93	12
Net Income	**$ 1,953**	$ 1,583	$ 1,224
Earned per Share	**$ 11.26**	$ 8.78	$ 6.68
Retained Earnings			
Balance, January 1	**$ 7,562**	$ 6,683	$ 6,173
Net income	**1,953**	1,583	1,224
Cash dividends:			
Preference stocks	**(4)**	(4)	(4)
Common stock	**(756)**	(700)	(710)
Cancellation of treasury stock	**(3,119)**	—	—
Balance, December 31	**$ 5,636**	$ 7,562	$ 6,683

See Notes on pages 41 through 52.

Millions of dollars	December 31 1989	1988
Assets		
Current assets:		
Cash and cash equivalents	$ 1,173	$ 876
Short-term investments	1,836	1,029
Accounts receivable	1,483	1,689
Inventories	710	962
Prepaid expenses and other current assets	212	201
Total current assets	5,414	4,757
Investments and long-term receivables:		
Investments accounted for on the equity method	194	168
Other investments and long-term receivables	80	130
	274	298
Fixed assets:		
Property, plant and equipment, including capitalized leases	28,431	29,279
Less accumulated depreciation, depletion and amortization	12,774	13,348
	15,657	15,931
Deferred charges and other assets	916	528
Total Assets	$22,261	$21,514
Liabilities and Stockholders' Equity		
Current liabilities:		
Notes payable	$ 577	$ 521
Accounts payable	1,078	1,156
Taxes payable, including excise taxes	409	261
Long-term debt and other obligations due within one year	704	577
Accrued interest	200	219
Other	469	530
Total current liabilities	3,437	3,264
Long-term debt	5,287	5,400
Capital lease obligations	26	265
Deferred income taxes	3,407	3,770
Other deferred liabilities and credits	3,273	2,333
Minority interest	269	235
Stockholders' equity:		
Preference stocks	1	1
Common stock, $2.50 par value; shares issued 167,584,194 (1989), 217,512,186 (1988); shares outstanding 164,186,803 (1989), 171,966,015 (1988)	419	544
Capital in excess of par value of stock	764	1,016
Retained earnings	5,636	7,562
Treasury stock, at cost	(236)	(2,909)
Foreign currency translation	(22)	33
Total stockholders' equity	6,562	6,247
Total Liabilities and Stockholders' Equity	$22,261	$21,514

The Company follows the successful efforts method of accounting for oil and gas producing activities.
See Notes on pages 41 through 52.

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Millions of dollars	1989	1988	1987
	For the year ended December 31		
Cash flows from operating activities:			
Net income	**$1,953**	$1,583	$1,224
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation, depletion and amortization	**1,748**	1,704	1,661
Tax refunds	—	—	779
Gain on subsidiary stock transactions	**(634)**	—	(185)
Income from equity investments	**(240)**	(48)	(65)
Dividends from equity investments	**84**	31	46
Non-cash provisions in excess of cash payments	**570**	146	239
Net change in deferred taxes	**(363)**	129	79
Dry-hole expense	**163**	149	76
Net change in accounts receivable, inventories and accounts payable	**380**	(263)	173
Net change in other working capital accounts	**57**	114	(156)
Other	**11**	6	(155)
Net cash provided by operating activities	**3,729**	3,551	3,716
Cash flows from investing activities:			
Additions to fixed assets (including dry-hole costs)	**(2,105)**	(3,038)	(1,463)
Net cash provided (used) by short-term investments	**(814)**	1,597	(1,369)
Proceeds from asset sales	**149**	145	265
Payments received on notes for sales of property	—	60	234
Net proceeds from subsidiary stock transactions	**1,241**	—	—
Net sale (acquisition) of Britoil stock	—	242	(132)
Other	**(334)**	(100)	26
Net cash used in investing activities	**(1,863)**	(1,094)	(2,439)
Cash flows from financing activities:			
Repayments of long-term debt	**(486)**	(868)	(1,470)
Proceeds from issuance of long-term debt	**459**	219	181
Net cash provided (used) by notes payable	**85**	(1,026)	392
Proceeds from issuance of common stock by subsidiary	—	—	591
Dividends paid	**(760)**	(704)	(714)
Treasury stock purchases, including subsidiaries	**(810)**	(601)	(94)
Other	**(29)**	(13)	(3)
Net cash used in financing activities	**(1,541)**	(2,993)	(1,117)
Effect of exchange rate changes on cash	**(28)**	(23)	15
Net increase (decrease) in cash and cash equivalents	**297**	(559)	175
Cash and cash equivalents at beginning of year	**876**	1,435	1,260
Cash and cash equivalents at end of year	**$1,173**	$ 876	$1,435

See Notes on pages 41 through 52.

1 Accounting Policy

ARCO's accounting policies conform to generally accepted accounting principles including the "successful efforts" method of accounting for oil and gas producing activities. The Notes to Consolidated Financial Statements exclude discontinued operations, unless stated otherwise.

Principles of Consolidation
The consolidated financial statements include the accounts of all subsidiaries, ventures and partnerships in which a controlling interest is held. The Company also consolidates its interest in undivided interest pipeline companies and in oil and gas and coal mining joint ventures. The Company uses the equity method of accounting for companies where its ownership is between 20 and 50 percent, and for other ventures and partnerships in which less than a controlling interest is held.

Cash Equivalents; Short-Term Investments
Cash equivalents consist of highly liquid investments, such as time deposits, certificates of deposit, and marketable securities other than equity securities, maturing within three months of purchase. Short-term investments consist of similar investments maturing in more than three months of purchase. Cash equivalents and short-term investments are stated at cost, which approximates market value.

Oil and Gas Unproved Property Costs
Unproved property costs are capitalized and amortized on a composite basis, considering past success experience and average property life. In general, costs of properties surrendered or otherwise disposed of are charged to accumulated amortization. Costs of successful properties are transferred to developed properties.

Dismantlement, Restoration and Reclamation Costs
The estimated costs, net of salvage value, of dismantling facilities or projects with limited lives or facilities which are required to be dismantled by contract, regulation or law, and the estimated cost of restoration and reclamation of land associated with such projects and land associated with mining operations, are accrued during operations and classified as a long-term liability. Such costs are taken into account in determining the cost of production in all operations, except oil and gas production, in which case such costs are considered in determining depreciation, depletion and amortization.

Fixed Assets
Fixed assets are recorded at cost and are written off on either a unit-of-production method or a straight-line method based upon the expected lives of individual plant items or groups of plant items.

Disposal of Facilities
Upon disposal of facilities depreciated on an individual plant item basis, residual cost less salvage is included in current income. Upon disposal of facilities depreciated on a group basis, unless unusual in nature or amount, residual cost less salvage is charged against accumulated depreciation.

Investment Tax Credits
Prior to 1986, investment tax credits were accounted for under the flow-through method as offsets against provisions for federal income taxes. Under the Tax Reform Act of 1986, investment tax credits are no longer available for assets not under construction or contract prior to January 1, 1986. Investment tax credits available under the transition rules will continue to be accounted for under the flow-through method.

Reclassifications
Certain previously reported amounts have been restated to conform to classifications adopted in 1989.

2 Public Offering of Lyondell Petrochemical Company Common Stock

In January 1989, ARCO completed an initial public offering of 43,000,000 shares of its Lyondell Petrochemical Company (Lyondell) common stock. The sale reduced ARCO's percentage ownership to 46.25 percent of the 80,000,000 shares of Lyondell common stock issued and outstanding. The Company recognized an after-tax gain of $634 million from this transaction.

The Company subsequently repurchased 2,976,400 shares of Lyondell common stock, bringing its percentage ownership to 49.9 percent. Effective January 1989, ARCO accounts for its investment in Lyondell on the equity method.

The market value of ARCO's shares of Lyondell common stock, based upon the closing quoted market price at December 31, 1989, was $859 million.

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3 Segment Information

The Company operates primarily in the Resources and Products segments. The Resources segment includes the Company's oil and gas operations, which comprise the exploration, development and production of petroleum, including petroleum liquids (crude oil, condensate and natural gas liquids) and natural gas; the purchase and sale of petroleum liquids and natural gas; and the mining and sale of coal. The Products segment includes the refining and transportation of petroleum and petroleum products; the marketing of petroleum products; and the manufacture and sale of intermediate chemicals and specialty products such as propylene oxide, styrene monomer, tertiary butyl alcohol and polystyrenic foams and resins.

Lyondell, a significant equity investment of the Company, is engaged in the manufacture, refining and marketing of basic commodity chemicals including ethylene, propylene, methanol and aromatics, and petroleum products. Prior to ARCO's sale of a majority interest, Lyondell was consolidated and reported as the integrated petrochemical and petroleum processing component of the Products segment.

Segment information for the years 1989, 1988 and 1987, was as follows:

Millions of dollars	1989	1988	1987
Sales and Other Operating Revenues			
Resources:			
Oil and gas	$ 8,138	$ 6,949	$ 7,724
Coal	519	403	320
Products:			
Refining and marketing	6,789	6,138	5,960
Transportation	862	931	967
Intermediate chemicals and specialty products	2,663	2,700	1,967
Integrated petrochemical and petroleum processing	—	4,696	3,926
Other operations	55	48	64
Elimination of intersegment amounts	(3,005)	(3,541)	(3,951)
Total	$16,021	$18,324	$16,977

Intersegment sales/transfers were made at prices approximating current market values. The amounts for intersegment sales that were included in sales and other operating revenues were as follows:

Millions of dollars	1989	1988	1987
Resources:			
Oil and gas	$2,632	$2,406	$2,917
Products:			
Refining and marketing	18	14	15
Transportation	312	353	436
Intermediate chemicals and specialty products	15	11	73
Integrated petrochemical and petroleum processing	—	732	468
Other operations	28	25	42
Total	$3,005	$3,541	$3,951
Pretax Segment Earnings			
Resources:			
Oil and gas	$1,464	$ 959	$1,528
Coal	138	114	102
Products:			
Refining and marketing	484	638	267
Transportation	424	488	584
Intermediate chemicals and specialty products	596	761	379
Integrated petrochemical and petroleum processing	—	850	231
Equity in earnings of Lyondell Petrochemical Company	214	—	—
Gain on subsidiary stock transactions	957	—	322
Unallocated expenses and other operations	(317)	(148)	(254)
Interest	(799)	(842)	(991)
Income taxes	(1,142)	(1,144)	(932)
Minority interest	(66)	(93)	(12)
Net income	$1,953	$1,583	$1,224
After-Tax Segment Earnings			
Resources:			
Oil and gas	$ 887	$ 542	$ 835
Coal	92	79	67
Products:			
Refining and marketing	291	368	150
Transportation	266	308	340
Intermediate chemicals and specialty products (a)	336	400	404
Integrated petrochemical and petroleum processing	—	529	132
Equity in earnings of Lyondell Petrochemical Company	214	—	—
Gain on subsidiary stock transactions	634	—	—
Unallocated expenses and other operations	(250)	(104)	(126)
Interest	(517)	(539)	(578)
Net income	$1,953	$1,583	$1,224

(a) Net of minority interest of $(66), $(93) and $(12) in 1989, 1988 and 1987, respectively, and including gain from subsidiary stock transaction of $185 in 1987.

Millions of dollars	1989	1988	1987
Total Assets			
Resources:			
Oil and gas	**$10,820**	$11,046	$10,027
Coal	**857**	725	540
Products:			
Refining and marketing	**2,175**	1,975	1,850
Transportation	**2,401**	2,418	2,523
Intermediate chemicals and specialty products	**2,655**	2,548	2,513
Integrated petrochemical and petroleum processing	—	864	720
Other operations	**3,353**	1,938	4,717
Total	**$22,261**	$21,514	$22,890
Depreciation, Depletion and Amortization			
Resources:			
Oil and gas	**$1,311**	$1,269	$1,292
Coal	**44**	34	28
Products:			
Refining and marketing	**132**	136	103
Transportation	**107**	104	102
Intermediate chemicals and specialty products	**128**	118	85
Integrated petrochemical and petroleum processing	—	16	13
Other operations	**26**	27	38
Total	**$1,748**	$1,704	$1,661
Additions to Fixed Assets			
Resources:			
Oil and gas	**$1,309**	$2,555	$ 721
Coal	**148**	107	12
Products:			
Refining and marketing	**314**	251	318
Transportation	**43**	53	26
Intermediate chemicals and specialty products	**262**	245	312
Integrated petrochemical and petroleum processing	—	65	27
Other operations	**29**	28	47
Total	**$2,105**	$3,304	$1,463

Millions of dollars	1989	1988	1987
Foreign Operations			
Sales and other revenues:			
Oil and gas	**$ 577**	$ 484	$ 555
Coal	**256**	154	85
Refining and marketing	**1,427**	1,573	1,564
Intermediate chemicals and specialty products	**920**	850	688
Other operations	**28**	25	42
Elimination of intersegment amounts	**(276)**	(195)	(287)
Total	**$2,932**	$2,891	$2,647
Net transfers from operations eliminated in consolidation:			
Oil and gas	**$ 276**	$ 195	$ 287
Net income:			
Oil and gas	**$ (8)**	$ (71)	$ 13
Coal	**34**	23	13
Refining and marketing	**7**	14	24
Intermediate chemicals and specialty products (a)	**89**	92	75
Other operations	**(3)**	6	(21)
Total	**$ 119**	$ 64	$ 104

(a) Includes earnings of equity affiliates, principally Asian joint ventures, of $15, $35 and $16, in 1989, 1988 and 1987, respectively.

	1989	1988	1987
Total assets:			
Oil and gas	**$1,902**	$1,895	$1,089
Coal	**519**	388	203
Refining and marketing	**244**	275	265
Intermediate chemicals and specialty products	**1,154**	1,067	889
Other operations	**167**	313	302
Total	**$3,986**	$3,938	$2,748

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4 Inventories

Inventories are recorded when purchased, produced or manufactured and are stated at the lower of cost or market. In 1989, approximately 60 percent of inventories, excluding materials and supplies, are valued by the last-in, first-out (LIFO) method. Materials and supplies and other non-LIFO inventories are valued predominantly on an average cost basis.

Total inventories at December 31, 1989 and 1988, comprised the following categories:

Millions of dollars	1989	1988
Crude oil and petroleum products	$150	$291
Chemical products	256	385
Other products	49	37
Materials and supplies	255	249
Total	$710	$962

The excess of the current cost of inventories over book value was approximately $167 million at December 31, 1989.

5 Fixed Assets

Property, plant and equipment, including capitalized leases and related accumulated depreciation, depletion and amortization at December 31, 1989 and 1988, were as follows:

Millions of dollars	1989	1988
Resources:		
Oil and gas	$19,432	$19,018
Coal	789	666
Products:		
Refining and marketing	2,591	2,314
Transportation	3,311	3,249
Intermediate chemicals and specialty products	1,851	1,565
Integrated petrochemical and petroleum processing	—	2,025
Other operations	457	442
	28,431	29,279
Accumulated depreciation, depletion and amortization	12,774	13,348
Total	$15,657	$15,931

Expenses for maintenance and repairs for 1989, 1988 and 1987 were $518 million, $469 million and $369 million, respectively.

6 Bank Credit Facilities and Compensating Balances

In 1989, the Company and certain wholly-owned subsidiaries had bank credit facilities of approximately $3.2 billion. Included in this total is a credit facility negotiated on behalf of a subsidiary that is denominated in pounds sterling. At December 31, 1989, there were no borrowings under these committed facilities.

ARCO Chemical Company (ACC) maintains its own credit facility which is not guaranteed by ARCO. At December 31, 1989, there were no borrowings against the ACC credit facility.

Notes payable on the balance sheet consist primarily of commercial paper issued to a variety of financial investors and institutions and any amounts outstanding under the ARCO or ACC credit facilities.

The Company has no requirements for compensating balances in a specific amount at a specific point in time. The Company does maintain compensating balances for some of its banking services and products. Such balances are maintained on an average basis and are solely at the Company's discretion, so that effectively on any given date, none of the Company's cash is restricted.

7 Interest Expense

Interest expense for the years ended December 31, 1989, 1988 and 1987, was comprised of the following:

Millions of dollars	1989	1988	1987
Long-term debt	$587	$625	$ 708
Short-term debt	75	80	127
Other	232	203	172
	894	908	1,007
Capitalized interest	(95)	(66)	(16)
Total	$799	$842	$ 991

8 Taxes

Taxes other than excise and income taxes for the years ended December 31, 1989, 1988 and 1987, comprised the following:

Millions of dollars	1989	1988	1987
Property	$177	$188	$182
Production/severance	395	268	336
Other	371	209	184
Total	$943	$665	$702

The components of the provision for taxes on income, including discontinued operations, for the years ended December 31, 1989, 1988 and 1987, were as follows:

Millions of dollars	1989	1988	1987
Federal:			
Current	$1,074	$ 734	$549
Deferred	(206)	114	60
	868	848	609
Foreign:			
Current	116	107	54
Deferred	14	24	76
	130	131	130
State:			
Current	183	146	70
Deferred	(39)	1	(13)
	144	147	57
Total	$1,142	$1,126	$796

Income tax benefits relating to discontinued operations were $18 million in 1988 and $136 million in 1987.

The sources of deferred income tax for the years ended December 31, 1989, 1988 and 1987, were as follows:

Millions of dollars	1989	1988	1987
Continuing operations:			
Federal:			
Depreciation	$ 38	$120	$ 92
Capitalized interest	23	19	2
Oil and gas lease amortization	(19)	(3)	5
Intangible drilling costs	(11)	(25)	(39)
Reserve provisions	(181)	—	(54)
Subsidiary stock transaction	(60)	—	140
Other	23	(22)	(1)
	(187)	89	145
Foreign	14	24	76
State	(39)	1	(13)
Total continuing operations	(212)	114	208
Discontinued operations:			
Federal	(19)	25	(85)
State	—	—	—
Total discontinued operations	(19)	25	(85)
Total	$(231)	$139	$123

The domestic and foreign components of income before income taxes and a reconciliation of income tax expense with tax at the effective federal statutory rate for the years ended December 31, 1989, 1988 and 1987, were as follows:

Millons of dollars	Amount	Percent of Pretax Income
1989		
Income before income taxes:		
Domestic	$2,830	89.5
Foreign	331	10.5
Total	$3,161	100.0
Tax at 34%	$1,075	34.0
Increase (reduction) in taxes resulting from:		
Subsidiary stock transaction/ dividend exclusion	(83)	(2.6)
Taxes on foreign income in excess of statutory rate	63	2.0
State income taxes (net of federal effect)	95	3.0
Other	(8)	(.3)
Provision for income taxes	$1,142	36.1
1988		
Income before income taxes, including discontinued operations:		
Domestic	$2,563	91.5
Foreign	239	8.5
Total	$2,802	100.0
Tax at 34%	$ 953	34.0
Increase (reduction) in taxes resulting from:		
Taxes on foreign income in excess of statutory rate	78	2.8
State income taxes (net of federal effect)	97	3.5
Other	(2)	(.1)
Provision for income taxes	$1,126	40.2
1987		
Income before income taxes, including discontinued operations:		
Domestic	$1,720	84.6
Foreign	312	15.4
Total	$2,032	100.0
Tax at 40%	$ 813	40.0
Increase (reduction) in taxes resulting from:		
Taxes on foreign income in excess of statutory rate	73	3.6
State income taxes (net of federal effect)	34	1.7
Discontinued operations	(82)	(4.0)
Other	(42)	(2.1)
Provision for income taxes	$ 796	39.2

The Company has not yet adopted Statement of Financial Accounting Standards (SFAS) No. 96, "Accounting for Income Taxes." In applying SFAS No. 96, the Company currently estimates that its deferred tax liability would be reduced with the resulting benefit of approximately $250 million recorded through the income statement and reported as a cumulative effect of a change in accounting principle.

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9 Long-Term Debt

Long-term debt at December 31, 1989 and 1988, comprised the following:

Millions of dollars	1989	1988
5⅝%, due in 1997	$ 36	$ 40
7.70%, due in 2000	62	66
7¾%, due in 2003	147	154
8⅝%, due in 2000	93	99
5.90%, due in 2007	265	265
8⅜%, due in 1997	41	50
6⅝%, due in 1993	39	48
13.45%, due in 1989	—	125
7%, due in 1991; $400 less unamortized discount of $45, effective rate 13.6%	355	335
Zero-coupon notes, due in 1992; $500 less unamortized discount of $123, effective rate 13.04%	377	329
11⅛%, due in 2015	300	300
11%, due in 2013	200	200
10¼%, due in 2000	250	250
10⅜%, due in 1995	500	500
10⅞%, due in 2005	500	500
First Series Medium-Term Notes	—	15
Second Series Medium-Term Notes	18	97
Third Series Medium-Term Notes	172	177
10½%, due in 1995	150	150
9¾%, due in 1989	—	200
9½%, due in 1996	150	150
9¼%, due in 1993	250	250
9⅛%, due in 1993	200	200
9⅞%, due in 2016	450	450
6⅛%, due in 1996	102	102
9⅛%, due in 2011	300	300
ARCO British Limited:		
Tricentrol Debt	131	143
Eurobonds, due in 1999	241	—
ARCO Chemical Company:		
French bank loans	147	144
9.35%, due in 2019	125	—
Medium-Term Notes	100	100
Other	443	363
Total, including debt due within one year	6,144	6,102
Less:		
Debt due within one year	704	548
Bonds held in sinking fund	153	154
Long-term debt	$5,287	$5,400

Maturities and sinking fund obligations for the five years subsequent to December 31, 1989, are as follows (millions of dollars): 1990 — $704; 1991 — $499; 1992 — $634; 1993 — $547; 1994 — $32.

In January 1990, the Board of Directors approved the early retirement of $300 million and $200 million in debentures due in 2015 and 2013, respectively. As a result, $500 million has been reclassified to debt due within one year.

10 Other Commitments and Contingencies

The Company has commitments, including those related to the acquisition, construction and development of facilities, all made in the normal course of business.

At December 31, 1989 and 1988, there were contingent liabilities with respect to guarantees of securities of other issuers of approximately $405 million and $183 million, respectively, of which approximately $42 million and $118 million, respectively, are indemnified. Of the 1989 amount, $240 million relates to the guarantee of commercial paper issued by an unrelated third party. The Company believes it would be made whole if it became obligated to pay pursuant to such guarantee.

Since June 1975, the Company and certain other petroleum companies have been named as defendants in a number of civil antitrust actions brought against them by state agencies or by private entities as class actions which allege violations of federal and state monopoly and restraint of trade statutes.The various types of relief sought in such actions include injunctive relief and damages. The Company is unable to predict the outcome of these actions at this time, but believes that they can be successfully defended; however, adverse decisions in certain such actions could have a significant effect on the scope and nature of the Company's operations. Final judicial determination of these actions is expected to take a number of years.

Claims of alleged violations of pricing regulations previously in effect established by the Department of Energy (DOE) brought by private parties are pending in two actions against the Company, one of which has been certified as a class action. These two matters, when resolved, are not expected to have a material adverse effect on the consolidated financial position of the Company.

The Company's valuation of North Slope crude oil has been under review by the State of Alaska and others for royalty, state income tax, state production tax and other purposes, and remains subject to Internal Revenue Service (IRS) audit. Substantially all the disputes over tax liabilities owed the Alaska Department of Revenue for production taxes and a majority of the disputes over state income tax liabilities pertaining to the valuation of North Slope crude oil and other issues have been settled. The Company and the IRS are currently disputing the proper method for determining the value of North Slope crude oil; in this regard, the Company has received a Notice of Proposed Deficiency, which the Company has protested. The Company expects that any future adjustments relating to these matters, as well as to royalty, tax and other matters, will not have a material adverse effect on its consolidated financial position.

On March 24, 1989, an oil tanker, the EXXON VALDEZ, ran aground near Bligh Island, Alaska, after taking on crude oil from the Valdez Marine Terminal operated by Alyeska Pipeline Service Company (Alyeska), of which ARCO Pipe Line Company (APL) owns approximately 21 percent. Roughly 240,000 barrels of crude oil were discharged into the waters of Prince William Sound. As a result, numerous lawsuits seeking damages and injunctions have been filed in state and federal court in Alaska against Exxon and Alyeska, alleging, among other things, that Alyeska responded inadequately to the oil spill. APL, along with the other owners of Alyeska, has been named as a defendant in at least twenty-nine federal cases and twenty-two state cases. Although it is too early to provide a meaningful assessment of the Company's liability, if any, arising out of this event, the Company does not believe that there will be any material adverse effect on its consolidated financial position.

On September 15, 1989, the United States Court of Appeals for the Fifth Circuit vacated the Federal Energy Regulatory Commission's (FERC) Order No. 451. This decision places in jeopardy any proceeds from the sale of "old gas" (from wells drilled prior to 1973) at prices higher than otherwise allowed by the Natural Gas Policy Act. Motions for rehearing were filed on October 10, 1989, by the FERC and by a group of producers (including ARCO), and other legal avenues of appeal may be taken in the future. Because of the uncertainties surrounding the status of FERC Order No. 451, it is too early for the Company to make a meaningful assessment of its liability, if any, as a result of this decision by the United States Court of Appeals; however, the Company does not believe that there will be any material adverse effect on its consolidated financial position.

In December 1989 and January 1990, there were filed against the Company several class action lawsuits alleging certain misstatements and omissions in the prospectus relating to the sale to the public by the Company in January 1989 of just over 50 percent of the common stock of Lyondell, the Company's then wholly-owned subsidiary. Some or all of these suits also name Lyondell, some or all of Lyondell's directors and the underwriters of the January 1989 initial public offering. Certain of the suits could be construed to allege certain misstatements and omissions in certain of Lyondell's public disclosures made during 1989. Each of these suits seeks to recover damages for stockholders who purchased stock between the period beginning January 18, 1989 and ending on various dates in October and November of 1989. The Company does not believe that resolution of these claims will have a material adverse effect on the consolidated financial position of the Company.

The Company is also the subject of or party to a number of pending or threatened legal actions for which the legal responsibility and financial impact cannot presently be ascertained. The Company does not anticipate that any ultimate liability arising from any of these suits would have a material effect on the Company's consolidated financial position.

The Company is subject to other loss contingencies pursuant to federal, state and local environmental laws and regulations. These include possible obligations to remove or mitigate the effects on the environment of the disposal or release of certain chemical and petroleum substances at various sites, such as Superfund sites, oil fields, service stations, terminals and other operating and closed facilities. The Company is currently participating in environmental assessments and cleanups at numerous sites under these laws and may in the future be involved in additional environmental assessments and cleanups. The amount of such future cost is indeterminable due to such factors as the unknown magnitude of clean-up costs, the unknown timing and extent of the remedial actions which may be required, the determination of the Company's liability in proportion to other responsible parties and the extent, if any to which such costs are recoverable from insurance. These contingencies also include claims for personal injuries allegedly caused by exposure to toxic materials manufactured or used by the Company. Although these contingencies could result in significant expenses or judgments, such expenses or judgments are not expected to have a material effect on the Company's consolidated financial position.

The operations and consolidated financial position of the Company continue to be affected from time to time in varying degrees by domestic and foreign political developments as well as legislation, regulations and litigation pertaining to restrictions on production, imports and exports, natural gas regulation, tax increases, environmental regulations, cancellation of contract rights and expropriation of property. Both the likelihood of such occurrences and their overall effect on the Company vary greatly and are not predictable.

These uncertainties are part of a number of items that the Company has taken and will continue to take into account in periodically establishing reserves.

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11 Retirement Plans

The Company and its subsidiaries have defined benefit pension plans to provide pension benefits to substantially all employees. The benefits are based on years of service and the employee's compensation primarily during the last three years of service. The Company's funding policy is to make annual contributions as required by applicable regulations. In 1989, 1988 and 1987, the Company charged pension costs as accrued, based on an actuarial valuation for each plan, and funded the plans through contributions to trust funds that are kept apart from Company funds.

Certain provisions of Statement of Financial Accounting Standards (SFAS) No. 87, "Employers' Accounting for Pensions," became effective in 1989. As a result, the Company has recorded an additional minimum liability of $74 million representing the difference between the unfunded accumulated benefit obligation and accrued pension cost previously recorded. In accordance with SFAS No. 87, this liability was offset by an intangible asset of equal amount.

The following table sets forth the plans' funded status and amounts recognized in the Company's balance sheet (including discontinued operations) at December 31, 1989 and 1988:

Millions of dollars	Assets Exceed Accumulated Benefits	Accumulated Benefits Exceed Assets
1989		
Actuarial present value of benefit obligations:		
Vested benefit obligation	$1,271	$ 155
Accumulated benefit obligation	$1,301	$ 157
Projected benefit obligation	$1,460	$ 172
Plan assets at fair value, primarily stocks and bonds	2,427	11
Projected benefit obligation (in excess of) or less than plan assets	967	(161)
Unrecognized net gain	(441)	(26)
Prior service cost not yet recognized in net periodic pension cost	44	13
Remaining unrecognized (asset) obligation from January 1, 1986	(535)	100
Adjustment required to recognize minimum liability	—	(74)
Prepaid pension cost (pension liability) recognized in the balance sheet	$ 35	$(148)

Millions of dollars	Assets Exceed Accumulated Benefits	Accumulated Benefits Exceed Assets
1988		
Actuarial present value of benefit obligations:		
Vested benefit obligation	$1,200	$172
Accumulated benefit obligation	$1,243	$172
Projected benefit obligation	$1,392	$178
Plan assets at fair value, primarily stocks and bonds	2,152	—
Projected benefit obligation (in excess of) or less than plan assets	760	(178)
Unrecognized net gain	(257)	(12)
Prior service cost not yet recognized in net periodic pension cost	36	—
Remaining unrecognized (asset) obligation from January 1, 1986	(580)	109
Adjustment required to recognize minimum liability	—	—
Prepaid pension cost (pension liability) recognized in the balance sheet	$ (41)	$(81)

Pension costs related to Company-sponsored plans, on a pre-tax basis, including amortization of unfunded projected benefit obligations for 1989, 1988 and 1987, were as follows:

Millions of dollars	1989	1988	1987
Service cost-benefits earned during the period	$ 32	$ 28	$ 32
Interest cost on projected benefit obligation	117	120	115
Actual return on plan assets	(349)	(180)	(139)
Net amortization and deferral	190	26	(8)
Net periodic pension cost (benefit)	$ (10)	$ (6)	$ —

The Company's assumptions used as of December 31, 1989, 1988 and 1987, in determining the pension cost and pension liability shown above were as follows:

Percent	1989	1988	1987
Discount rate	9.75	10.0	9.75
Rate of salary progression	5.0	5.0	5.0
Long-term rate of return on assets	9.5	9.5	9.5

The Company provides certain health care and life insurance benefits for substantially all retired employees. The costs of such benefits are recognized as incurred. In 1989, 1988 and 1987, these costs totaled $25 million, $22 million and $19 million, respectively.

12 Stockholders' Equity

Detail of the Company's capital stock as of December 31, 1989 and 1988, was as follows:

	1989	1988
$3.00 Cumulative convertible preference stock, par $1:		
Shares authorized	**245,714**	245,714
Shares issued and outstanding	**126,101**	141,835
Aggregate value in liquidation — (thousands)	**$10,088**	$11,347
$2.80 Cumulative convertible preference stock, par $1:		
Shares authorized	**4,785,041**	4,785,041
Shares issued and outstanding	**1,181,758**	1,319,423
Aggregate value in liquidation — (thousands)	**$82,723**	$92,360
Common stock, par $2.50:		
Shares authorized	**600,000,000**	600,000,000
Shares issued	**167,584,194**	217,512,186
Shares outstanding	**164,186,803**	171,966,015
Shares held in treasury	**3,397,391**	45,546,171

The changes in preference stocks were due solely to conversions. The $3.00 cumulative convertible preference stock is convertible into 6.8 shares of common stock. The $2.80 cumulative convertible preference stock is convertible into 2.4 shares of common stock. The common stock is subordinate to the preference stocks for dividends and assets. The $3.00 and $2.80 preference stocks may be redeemed at the option of the Company for $82.00 and $70.00, respectively.

The Company has authorized 352,000 shares of Series B, 3.75% cumulative preferred stock, $100 par, of which none were issued or outstanding at December 31, 1989 and 1988.

By Board authorization, effective December 31, 1989 the Company cancelled 50 million shares of common stock held in treasury. As a result of the cancellation, common stock decreased by $125 million, capital in excess of par value of stock decreased by $228 million, and retained earnings decreased by $3,119 million.

The balance in the Company's common stock was $419 million at December 31, 1989, and $544 million at December 31, 1988 and 1987. The change was due to the 1989 cancellation of treasury stock.

Detail of changes in the Company's treasury stock in 1989, 1988 and 1987, was as follows:

Millions of dollars	
Balance, January 1, 1987	$2,445
Treasury stock purchases	94
Conversions	(39)
Employee benefit plans	(62)
Balance, December 31, 1987	2,438
Treasury stock purchases	492
Conversions	(18)
Employee benefit plans	(3)
Balance, December 31, 1988	2,909
Treasury stock purchases	**827**
Conversions	**(28)**
Employee benefit plans	—
Cancellation of treasury stock	**(3,472)**
Balance, December 31, 1989	**$ 236**

The net decrease in capital in excess of par value of stock in 1989, 1988 and 1987 of $252 million, $18 million and $39 million, respectively, was due primarily to the conversion of preference stock to common stock and the cancellation of treasury stock in 1989.

The Company's certificate of incorporation contains a provision restricting dividend payments; however, at December 31, 1989, retained earnings were free from such restriction. At December 31, 1989, shares of the Company's authorized and unissued common stock were reserved as follows:

Conversions:	
$3.00 Preference stock	**857,487**
$2.80 Preference stock	**2,836,219**
Stock option plans	**3,278,005**
Employee benefit plans	**9,974,482**
Total	**16,946,193**

Under the Company's incentive compensation plans, awards of the Company's common stock may be made to officers and key employees.

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13 Stock Options

Options to purchase shares of the Company's common stock have been granted to executives and key employees. These options become exercisable in varying installments and expire eight to ten years after the date of grant. Transactions during 1989, 1988 and 1987, were as follows:

Balance, January 1, 1987	690,786
Granted	200,432
Cancelled or expired	(10,800)
Exercised (average option price per share: $44.19)	(190,299)
Balance, December 31, 1987	690,119
Granted	539,371
Cancelled or expired	(3,176)
Exercised (average option price per share: $49.20)	(43,316)
Balance, December 31, 1988	1,182,998
Granted	**424,496**
Cancelled or expired	**(5,479)**
Exercised (average option price per share: $50.19)	**(113,480)**
Balance, December 31, 1989	**1,488,535**
At December 31, 1989	
Shares exercisable	**138,968**
Shares available for option (3,374,308 at December 31, 1988)	**1,789,470**
Average option price per share:	
Shares under option	**$79.46**
Shares exercisable	**$55.70**

14 Earned per Share

Earned per share is based on the average number of common shares outstanding during each period, including common stock equivalents that consist of certain outstanding options and all outstanding convertible securities. The dividends attributable to the convertible securities are considered, for this calculation, to be available to common shares.

The information necessary for the calculation of earned per share for the years ended December 31, 1989, 1988 and 1987, was as follows:

Millions of dollars and shares except per share amounts	1989	1988	1987
Net income	**$1,952.8**	$1,583.1	$1,224.3
Average number of common shares outstanding	**169.2**	175.8	178.4
Common stock equivalents	**4.2**	4.6	4.9
Total	**173.4**	180.4	183.3
Earned per share	**$11.26**	$8.78	$6.68

15 Supplemental Cash Flow Information

The following is supplemental cash flow information provided in accordance with SFAS No. 95, "Statement of Cash Flows", for the years ended December 31, 1989, 1988 and 1987:

Millions of dollars	1989	1988	1987
Gross maturities of short-term investments	**$5,551**	$14,151	$ 6,227
Gross purchases of short-term investments	**(6,365)**	(12,554)	(7,596)
Net cash provided (used) by short-term investments	**$ (814)**	$ 1,597	$ (1,369)
Gross proceeds from issuance of notes payable	**$2,891**	$11,650	$11,214
Gross repayments of notes payable	**(2,806)**	(12,676)	(10,822)
Net cash provided (used) by notes payable	**$ 85**	$ (1,026)	$ 392
Gross non-cash provisions charged to income	**$ 834**	$ 489	$ 627
Cash payments of previously deferred items	**(264)**	(343)	(388)
Non-cash provisions in excess of cash payments	**$ 570**	$ 146	$ 239

During 1988, the Company purchased all of the capital stock of Tricentrol PLC. In connection with the acquisition, liabilities were assumed as follows:

Millions of dollars	
Net fair value of assets acquired	$710
Cash paid for capital stock	(454)
Liabilities assumed	$256

Liabilities assumed consisted of $132 million of long-term debt and $124 million outstanding under a short-term credit facility.

Interest paid during the years ended December 31, 1989, 1988 and 1987 was $818 million, $850 million and $1,119 million, respectively.

Income taxes paid during the years ended December 31, 1989, 1988 and 1987 were $1,267 million, $1,053 million, and $795 million, respectively.

16 Leased Assets and Lease Commitments

Commitments under capital financial leases are capitalized with the obligation recorded at the present value of future rental payments. The related assets are amortized on a straight-line basis.

At December 31, 1989, future minimum rental payments due under leases were as follows:

Millions of dollars	Capital Leases	Operating Leases
1990	$ 3	$133
1991	3	106
1992	3	89
1993	3	81
1994	3	65
Later years	89	354
Total minimum lease payments	$104	$828
Imputed interest (rates ranging from 9.75% to 14.875%)	78	
Present value of minimum lease payments	$ 26	

At December 31, 1989 and 1988, capital lease obligations due within one year amounted to $.1 million and $28 million, respectively. Minimum future rental income under noncancelable subleases at December 31, 1989 amounted to $175 million.

Operating lease net rental expense for the years ended December 31, 1989, 1988 and 1987, was as follows:

Millions of dollars	1989	1988	1987
Minimum rentals	$169	$165	$152
Contingent rentals	2	1	6
Sublease rental income	(23)	(16)	(8)
Net rental expense	$148	$150	$150

No restrictions on dividends or on additional debt or lease financing exist under lease commitments of the Company. Under certain conditions, options and obligations exist to purchase certain leased properties.

17 Minority Interest

In October 1987, ACC, previously a wholly-owned subsidiary of the Company, completed an initial public offering of 19,550,000 shares of its common stock, which shares were in addition to the 80,000,001 shares already held by the Company. The Company recognized an after-tax gain of $185 million from this transaction. The portion of ACC's equity relating to the shares not owned by ARCO or not held as treasury stock by ACC, and the earnings related thereto, are presented as "Minority Interest" in the accompanying financial statements.

18 Foreign Currency Transaction Loss

Foreign exchange losses amounted to $89 million, $97 million and $70 million in 1989, 1988 and 1987, respectively, relating primarily to Brazilian operations.

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19 ARCO Pipe Line Company

Summarized financial information for ARCO Pipe Line Company, a wholly-owned subsidiary of ARCO, was as follows:

Millions of dollars	1989	1988	1987
Year Ended December 31:			
Revenues	$611	$648	$691
Income before income taxes	$319	$391	$490
Net income	$198	$218	$287
At December 31:			
Current assets	$ 162	$ 160	
Noncurrent assets	$1,475	$1,499	
Current liabilities	$ 108	$ 144	
Long-term debt	$ 317	$ 317	
Other liabilities	$ 636	$ 620	
Stockholder's equity	$ 576	$ 578	

20 Lyondell Petrochemical Company

Summarized financial information for Lyondell Petrochemical Company, an equity investment of ARCO, was as follows:

Millions of dollars	1989	1988	1987
Year Ended December 31:			
Revenues	$5,358	$4,696	$3,931
Sales to ARCO and ACC	$ 667(b)	$ 732	$ 469
Income before income taxes	$ 558	$ 825	$ 205
Net income	$ 374	$ 543	$ 123
ARCO's equity in net income of Lyondell	$ 214	(a)	(a)
Cash dividends received from Lyondell	$ 48	(a)	(a)
At December 31:			
Current assets	$801	$609	
Noncurrent assets	$466	$304	
Current liabilities	$433	$340	
Long-term debt	$714	$243	
Other liabilities	$111	$ 92	
Stockholders' equity	$ 9	$238	

(a) Prior to 1989, Lyondell was a 100% owned consolidated subsidiary of ARCO.
(b) Approximates 10% of ARCO's purchases.

21 Unaudited Quarterly Results

Millions of dollars except per share amounts	1989	1988
Sales and Other Operating Revenues (including excise taxes)		
Quarter ended:		
March 31	$ 3,962	$ 4,608
June 30	4,334	4,576
September 30	3,714	4,592
December 31	4,011	4,548
Total	$16,021	$18,324
Income before Income Taxes and Minority Interest		
Quarter ended:		
March 31	$ 1,071	$ 728
June 30	770	728
September 30	648	700
December 31	672	664
Total	$ 3,161	$ 2,820
Net Income		
Quarter ended:		
March 31	$ 704	$ 401
June 30	467	400
September 30	379	391
December 31	403	391
Total	$ 1,953	$ 1,583
Earned per Share		
Quarter ended:		
March 31	$ 4.00	$ 2.20
June 30	$ 2.66	$ 2.19
September 30	$ 2.19	$ 2.17
December 31	$ 2.38	$ 2.22

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RESPONSIBILITY FOR FINANCIAL STATEMENTS

To the Stockholders of Atlantic Richfield Company (ARCO)

The Company's management assumes responsibility for the integrity and objectivity of the financial information contained in this Annual Report, including the statements covered by the independent accountants' report. The Company maintains an accounting system and related controls to provide reasonable assurance of the integrity and objectivity of accounting information and for the safeguarding of assets. The fair presentation of the Company's financial position and results of operations, in conformity with generally accepted accounting principles, is reported on by the independent accountants.

In addition to the accounting and control systems and the use of independent accountants, the Company maintains a staff of internal auditors who conduct internal control audits as well as special audits, coordinating their activities with the independent accountants.

The Company has had an Audit Committee of the Board of Directors for more than twenty years. The Committee currently consists exclusively of directors who are not employees of the Company, and meets as required, but at a minimum of three times a year. The Committee has been established for the general purpose of satisfying itself as to the integrity of the Company's accounting and financial reporting, maintaining communications between the Board of Directors and external and internal auditors, continuously emphasizing the need for internal financial controls, and initiating special investigations as deemed necessary. The independent accountants and the internal auditors have full and free access to the Audit Committee and meet with it, with and without management being present, to discuss all appropriate matters.

Lodwrick M. Cook

Lodwrick M. Cook
Chairman of the Board and
Chief Executive Officer

INDEPENDENT ACCOUNTANTS' REPORT

To the Stockholders and Board of Directors of Atlantic Richfield Company (ARCO)

We have audited the accompanying consolidated balance sheets of Atlantic Richfield Company as of December 31, 1989 and 1988, and the related consolidated statements of income and retained earnings and cash flows for each of the three years in the period ended December 31, 1989. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Atlantic Richfield Company as of December 31, 1989 and 1988, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 1989, in conformity with generally accepted accounting principles.

Coopers & Lybrand

Coopers & Lybrand
Los Angeles, California
February 9, 1990

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Oil and Gas Producing Activities

The Securities and Exchange Commission (SEC) defines proved oil and gas reserves as those estimated quantities of crude oil, natural gas, and natural gas liquids which geological and engineering data demonstrate with reasonable certainty to be recoverable in future years from known reservoirs under existing economic and operating conditions. Proved developed oil and gas reserves are reserves that can be expected to be recovered through existing wells with existing equipment and operating methods.

ARCO reports reserve estimates to various federal government agencies and commissions. These estimates may cover various regions of crude oil and natural gas classifications within the United States and may be subject to mandated definitions. There have been no reports of total Company reserve estimates furnished to federal government agencies or commissions which vary from those reported to the SEC since the beginning of the last fiscal year.

Estimated quantities of proved oil and gas reserves of the Company were as follows:

	Petroleum Liquids (million barrels)		Natural Gas (billion cubic feet)	
	Domestic	Foreign	Domestic	Foreign
January 1, 1987:				
Proved reserves	2,728	199	5,923	972
Proved developed reserves	2,186	107	5,043	360
December 31, 1987:				
Proved reserves	2,818	223	5,854	897
Proved developed reserves	2,201	86	4,806	319
December 31, 1988:				
Proved reserves	2,829	264	6,373	1,249
Proved developed reserves	2,184	115	5,420	363
December 31, 1989:				
Proved reserves	**2,765**	**237**	**6,452**	**1,206**
Proved developed reserves	**2,157**	**101**	**5,473**	**324**

The changes in proved reserves for the three years ended December 31, 1989, were as follows:

	Petroleum Liquids (million barrels)		Natural Gas (billion cubic feet)	
	Domestic	Foreign	Domestic	Foreign
Reserves at January 1, 1987	2,728	199	5,923	972
Revisions of estimates	108	(22)	404	(108)
Improved recovery	141	—	—	—
Purchase of minerals-in-place	8	—	7	43
Extensions and discoveries	104	69	202	49
Production	(243)	(23)	(464)	(59)
Consumed in production	—	—	(70)	—
Sales of minerals-in-place	(28)	—	(148)	—
Reserves at December 31, 1987	2,818	223	5,854	897
Revisions of estimates	18	18	415	(28)
Improved recovery	98	—	41	—
Purchase of minerals-in-place	117	30	45	430
Extensions and discoveries	32	16	620	6
Production	(246)	(23)	(508)	(56)
Consumed in production	—	—	(75)	—
Sales of minerals-in-place	(8)	—	(19)	—
Reserves at December 31, 1988	2,829	264	6,373	1,249
Revisions of estimates	**38**	**(2)**	**204**	**13**
Improved recovery	**31**	—	**12**	—
Purchase of minerals-in-place	**39**	—	**5**	—
Extensions and discoveries	**79**	**2**	**507**	**6**
Production	**(241)**	**(26)**	**(558)**	**(62)**
Consumed in production	—	—	**(68)**	—
Sales of minerals-in-place	**(10)**	**(1)**	**(23)**	—
Reserves at December 31, 1989	**2,765**	**237**	**6,452**	**1,206**

Estimates of petroleum reserves have been made by Company engineers. These estimates do not include probable or possible reserves. Natural gas liquids comprise 10.8 percent of petroleum liquid proved reserves.

Proved reserves do not include 660 billion cubic feet of reserves from the Pagerungan gas field in Indonesia which would be classified as proved when a gas supply agreement with Pertamina, the Indonesian national oil company, is finalized.

Included in domestic proved reserves are approximately 90 million barrels of crude oil equivalents associated with the Coal Oil Point field offshore California. In 1987, the California State Lands Commission (SLC) denied development permits for this project. The Company has filed suit against the SLC and County of Santa Barbara to force approval of the development plan or allow the Company to recover damages. On January 24, 1990, the California Superior Court for the County of Los Angeles issued an order in favor of the SLC. Under the order, the SLC was allowed to defer development of the Coal Oil Point leases for a reasonable period while ARCO and the SLC evaluate technological and economic feasibility of alternative methods for further development. ARCO is considering various options, including an immediate appeal.

The sale of natural gas from the North Slope of Alaska, which is not used in providing fuel in North Slope operations or sold to others on the North Slope, is dependent upon construction of a natural gas transportation system or another marketing alternative. There are currently two active projects under consideration; the Alaska Natural Gas Transportation System (ANGTS) and the Trans Alaska Gas System (TAGS). However, there are a number of regulatory, financial, legal and marketing questions regarding the projects that remain unresolved.

The Company has studied various options for marketing North Slope gas over the past few years. However, ARCO Alaska believes that market conditions do not warrant implementing any large gas sales project within the forseeable future.

The aggregate amounts of capitalized costs relating to oil and gas producing activities and the related accumulated depreciation, depletion and amortization as of December 31, 1989, 1988 and 1987, were as follows:

Millions of dollars	Proved Properties		Unproved Properties	
1989	Domestic	Foreign	Domestic	Foreign
Gross	**$15,751**	**$2,347**	**$826**	**$477**
Accumulated depreciation, depletion and amortization	**8,307**	**1,108**	**89**	**74**
Net	**$ 7,444**	**$1,239**	**$737**	**$403**
1988				
Gross	$15,558	$2,311	$749	$350
Accumulated depreciation, depletion and amortization	7,821	934	25	81
Net	$ 7,737	$1,377	$724	$269
1987				
Gross	$14,656	$1,559	$509	$166
Accumulated depreciation, depletion and amortization	7,027	822	16	43
Net	$ 7,629	$ 737	$493	$123

Costs, both capitalized and expensed, incurred in oil and gas producing activities (including operating overhead) during the three years ended December 31, 1989, 1988 and 1987, were as follows:

Millions of dollars			
1989	Domestic	Foreign	Total
Property acquisition costs	**$128**	**$ 6**	**$ 134**
Exploration costs	**$384**	**$173**	**$ 557**
Development costs	**$625**	**$216**	**$ 841**
1988			
Property acquisition costs	$600	$702	$1,302
Exploration costs	$323	$232	$ 555
Development costs	$734	$209	$ 943
1987			
Property acquisition costs	$ 49	$ —	$ 49
Exploration costs	$232	$163	$ 395
Development costs	$395	$ 90	$ 485

Property acquisition costs are primarily unproved properties, except for 1988 which included $249 million and $579 million for domestic and foreign proved properties, respectively.

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Results of operations from oil and gas producing activities (including operating overhead) for the three years ended December 31, 1989, 1988 and 1987, were as follows:

Millions of dollars			
1989	Domestic	Foreign	Total
Revenues:			
Sales	**$1,679**	**$301**	**$1,980**
Transfers	**2,487**	**276**	**2,763**
Other	**156**	**15**	**171**
	4,322	**592**	**4,914**
Production costs	**1,392**	**211**	**1,603**
Exploration expenses	**283**	**157**	**440**
Depreciation, depletion and amortization	**1,094**	**192**	**1,286**
Other	**134**	**—**	**134**
	1,419	**32**	**1,451**
Income tax expense	**533**	**40**	**573**
Results of operations from production activities	**$ 886**	**$ (8)**	**$ 878**
1988			
Revenues:			
Sales	$ 723	$289	$1,012
Transfers	2,725	195	2,920
Other	152	17	169
	3,600	501	4,101
Production costs	1,220	172	1,392
Exploration expenses	277	192	469
Depreciation, depletion and amortization	1,024	166	1,190
Other	136	—	136
	943	(29)	914
Income tax expense	359	42	401
Results of operations from production activities	$ 584	$(71)	$ 513
1987			
Revenues:			
Sales	$ 738	$268	$1,006
Transfers	3,183	287	3,470
Other	144	18	162
	4,065	573	4,638
Production costs	1,237	192	1,429
Exploration expenses	194	141	335
Depreciation, depletion and amortization	1,050	150	1,200
Other	175	—	175
	1,409	90	1,499
Income tax expense	604	77	681
Results of operations from production activities	$ 805	$ 13	$ 818

The difference between the above results of operations for 1989, 1988 and 1987, and the amounts reported for after-tax oil and gas segment earnings in Note 3 of Notes to Consolidated Financial Statements is primarily the marketing related activities.

The standardized measure of discounted estimated future net cash flows, and changes therein, related to proved oil and gas reserves were as follows:

Billions of dollars			
1989	Domestic	Foreign	Total
Future cash inflows	**$48.6**	**$6.9**	**$55.5**
Future development and production costs	**24.0**	**3.1**	**27.1**
Future income tax expense	**8.2**	**1.4**	**9.6**
Future net cash flows	**16.4**	**2.4**	**18.8**
10% annual discount	**7.3**	**1.1**	**8.4**
Standardized measure of discounted future net cash flows	**$ 9.1**	**$1.3**	**$10.4**
1988			
Future cash inflows	$33.3	$ 6.8	$40.1
Future development and production costs	17.4	3.2	20.6
Future income tax expense	5.0	1.2	6.2
Future net cash flows	10.9	2.4	13.3
10% annual discount	5.0	1.3	6.3
Standardized measure of discounted future net cash flows	$ 5.9	$ 1.1	$ 7.0
1987			
Future cash inflows	$34.6	$ 6.0	$40.6
Future development and production costs	17.2	2.7	19.9
Future income tax expense	5.4	1.3	6.7
Future net cash flows	12.0	2.0	14.0
10% annual discount	5.4	1.1	6.5
Standardized measure of discounted future net cash flows	$ 6.6	$ .9	$ 7.5

Primary changes in the standardized measure of discounted estimated future net cash flows were as follows:

Billions of dollars	1989	1988	1987
Sales and transfer of oil and gas, net of production costs	**$(3.2)**	$(2.5)	$(3.1)
Extensions, discoveries and improved recovery, less related costs	**.9**	.7	.8
Revisions of estimates of reserves proved in prior years:			
Quantity estimates	**.3**	.3	.3
Net changes in price and production costs	**5.3**	(1.7)	2.6
Purchases/Sales	**—**	.8	—
Other	**.2**	(.1)	.3
Accretion of discount	**1.1**	1.0	.9
Development costs incurred during the period	**.8**	.9	.5
Net change in income taxes	**(2.0)**	.1	(1.2)
Net change	**$ 3.4**	$ (.5)	$ 1.1

Estimated future cash inflows are computed by applying year-end prices of oil and gas to year-end quantities of proved reserves. Future price changes are considered only to the extent provided by contractual arrangements. Estimated future development and production costs are determined by estimating the expenditures to be incurred in developing and producing the proved oil and gas reserves at the end of the year, based on year-end costs and assuming continuation of existing economic conditions. Estimated future income tax expenses are calculated by applying year-end statutory tax rates (adjusted for permanent differences and tax credits) to estimated future pretax net cash flows related to proved oil and gas reserves, less the tax basis of the properties involved.

These estimates are furnished and calculated in accordance with requirements of the Financial Accounting Standards Board and the SEC. Because of unpredictable variances in expenses and capital forecasts, crude oil and natural gas price changes, largely influenced and controlled by U.S. and foreign governmental actions, and the fact that the bases for such estimates vary significantly, management believes the usefulness of these projections is limited. Estimates of future net cash flows presented do not represent management's assessment of future profitability or future cash flow to the Company. Management's investment and operating decisions are based upon reserve estimates that include proved reserves prescribed by the SEC as well as probable reserves, and upon different price and cost assumptions from those used here.

It should be recognized that applying current costs and prices and a 10 percent standard discount rate does not convey absolute value. The discounted amounts arrived at are only one measure of the value of proved reserves.

Regarding the information concerning estimated reserve quantities and discounted future net cash flows, the Company has no long-term supply contracts with foreign governments or any interest in equity affiliates involved in oil and gas producing activities.

Coal Operations

Supplemental operating statistics for the coal operations of the Company for the three years ended December 31, 1989, 1988 and 1987, were as follows:

	1989	1988	1987
Coal shipments - thousand tons:			
Domestic	**31,114**	26,936	22,888
Foreign	**8,333**	5,511	3,249
Total	**39,447**	32,447	26,137
Coal reserves - million tons recoverable:			
Domestic	**869**	877	910
Foreign	**321**	306	118
Total	**1,190**	1,183	1,028
Average market price per ton of coal:			
Domestic	**$ 9.29**	$10.60	$11.42
Foreign	**$31.33**	$28.87	$25.27
Composite price	**$13.95**	$13.71	$13.14

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Millions of dollars except per share amounts	1989	1988	1987	1986
Sales and Other Operating Revenues				
Resources:				
Oil and gas	$ 8,138	$ 6,949	$ 7,724	$ 6,942
Coal	519	403	320	345
Products:				
Refining and marketing	6,789	6,138	5,960	5,256
Transportation	862	931	967	1,045
Intermediate chemicals and specialty products	2,663	2,700	1,967	1,907
Integrated petrochemical and petroleum processing*	—	4,696	3,926	3,008
Other operations	55	48	64	83
Elimination of intersegment amounts	(3,005)	(3,541)	(3,951)	(3,477)
Total	$16,021	$18,324	$16,977	$15,109
Net Income				
Resources:				
Oil and gas	$ 887	$ 542	$ 835	$ 333
Coal	92	79	67	76
Products:				
Refining and marketing	291	368	150	353
Transportation	266	308	340	352
Intermediate chemicals and specialty products	336	400	404	70
Integrated petrochemical and petroleum processing*	—	529	132	132
Equity in earnings of Lyondell Petrochemical Company	214	—	—	—
Gain on subsidiary stock transactions	634	—	—	
Unallocated expenses and other operations	(250)	(104)	(126)	(187)
Interest	(517)	(539)	(578)	(514)
Net Income	$ 1,953	$ 1,583	$ 1,224	$ 615
Earned per share	$ 11.26	$ 8.78	$ 6.68	$ 3.38
Retained earnings	$ 5,636	$ 7,562	$ 6,683	$ 6,173
Additions to Fixed Assets				
Resources:				
Oil and gas (including dry-hole costs)	$ 1,309	$ 2,555	$ 721	$ 1,322
Coal	148	107	12	15
Products:				
Refining and marketing	314	251	318	246
Transportation	43	53	26	31
Intermediate chemicals and specialty products	262	245	312	172
Integrated petrochemical and petroleum processing*	—	65	27	13
Other operations	29	28	47	23
Total	$ 2,105	$ 3,304	$ 1,463	$ 1,822

* Prior to 1989, Lyondell Petrochemical Company was a 100 percent owned subsidiary. In 1989, Lyondell is a 49.9 percent owned equity investment and is no longer consolidated.

	1989	1988	1987	1986
Oil and Gas				
After-tax oil and gas earnings (millions):				
Alaska	**$546**	$382	$487	$124
Lower 48	**349**	231	335	195
Foreign	**(8)**	(71)	13	14
Total	**$887**	$542	$835	$333
Exploration expense (millions):				
Alaska —				
Dry-hole costs	**$ 6**	$ 8	$ 2	$ 9
Lease amortization	**23**	24	24	18
Geological and geophysical	**21**	10	9	4
Other	**19**	14	10	13
Total Alaska	**69**	56	45	44
Lower 48 —				
Dry-hole costs	**107**	82	33	174
Lease amortization	**95**	90	95	66
Geological and geophysical	**34**	42	30	31
Other	**76**	83	74	105
Total Lower 48	**312**	297	232	376
Total Domestic	**381**	353	277	420
Foreign —				
Dry-hole costs	**50**	59	41	10
Geological and geophysical	**19**	25	28	15
Other	**29**	48	36	34
Total Foreign	**98**	132	105	59
Total	**$479**	$485	$382	$479
Crude oil, condensate and NGL production (thousand barrels/day-net):				
Domestic —				
Prudhoe Bay	**280.5**	304.9	313.4	306.8
Kuparuk	**147.1**	146.3	122.0	109.9
Lisburne	**12.5**	13.6	15.0	4.1
Other Alaska	**4.3**	5.2	6.1	7.3
NGLs	**15.0**	17.3	13.9	1.8
Total Alaska	**459.4**	487.3	470.4	429.9
Lower 48 — Crude oil	**166.2**	151.2	157.1	188.8
— NGLs	**34.4**	35.7	37.5	40.4
Total Domestic	**660.0**	674.2	665.0	659.1
Foreign —				
Indonesia	**47.2**	42.4	46.6	56.8
Dubai	**8.1**	8.7	9.6	10.9
United Kingdom	**9.6**	6.8	1.0	—
Other	**.9**	.6	.8	.9
NGLs	**4.3**	5.1	5.2	6.0
Total Foreign	**70.1**	63.6	63.2	74.6
Total	**730.1**	737.8	728.2	733.7

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	1989	1988	1987	1986
Oil and Gas (continued)				
Natural gas sales (million cubic feet/day):				
Domestic —				
Onshore	**855.0**	708.0	587.0	582.0
Offshore	**674.0**	681.0	685.0	662.0
Total Domestic	**1,529.0**	1,389.0	1,272.0	1,244.0
Foreign —				
United Kingdom	**117.9**	99.8	108.3	72.4
Indonesia	**14.2**	17.5	21.9	28.5
Netherlands	**31.1**	29.4	26.1	23.2
Colombia	**6.0**	7.4	8.1	8.5
Total Foreign	**169.2**	154.1	164.4	132.6
Total	**1,698.2**	1,543.1	1,436.4	1,376.6
Average sales prices —				
Crude oil and condensate (dollars/barrel):				
Alaska	**$11.71**	$ 8.51	$10.95	$ 6.43
Lower 48	**$16.92**	$14.20	$17.23	$14.66
Composite average	**$13.13**	$ 9.90	$12.56	$ 8.94
Foreign	**$16.25**	$14.20	$16.44	$13.77
NGLs, lease and plant (dollars/barrel):				
Domestic	**$10.38**	$ 9.25	$10.43	$ 9.53
Foreign	**$ 6.60**	$ 7.53	$ 9.02	$ 8.59
Natural gas (dollars/thousand cubic feet):				
Domestic	**$ 1.67**	$ 1.68	$ 1.63	$ 1.94
Foreign	**$ 2.71**	$ 2.64	$ 2.36	$ 1.51
Proved oil and gas reserves net —				
Crude oil and NGLs (million barrels):				
North Slope	**1,971**	2,053	2,119	2,029
Other Alaska	**14**	11	17	17
Total Alaska	**1,985**	2,064	2,136	2,046
Lower 48	**780**	765	682	682
Foreign	**237**	264	223	199
Total	**3,002**	3,093	3,041	2,927
Natural gas (billion cubic feet):				
North Slope	**2,225**	2,233	1,950	1,734
Other Alaska	**261**	251	257	251
Total Alaska	**2,486**	2,484	2,207	1,985
Lower 48	**3,966**	3,889	3,647	3,938
Foreign	**1,206**	1,249	897	972
Total	**7,658**	7,622	6,751	6,895

	1989	1988	1987	1986
Oil and Gas (continued)				
Net wells completed:				
Domestic —				
Exploratory — oil	**4**	6	4	4
gas	**21**	22	15	7
dry	**41**	42	28	45
Development — oil	**188**	271	150	215
gas	**131**	85	59	35
dry	**32**	36	16	16
Foreign —				
Exploratory — oil	**2**	3	5	3
gas	**1**	—	2	1
dry	**15**	17	8	5
Development — oil	**22**	14	17	33
gas	**3**	—	1	6
dry	**—**	—	—	1
Net producing wells:				
oil	**8,138**	8,418	7,582	8,946
gas	**1,889**	1,796	1,672	1,772
Net acreage (thousand acres):				
Domestic —				
Developed	**2,453**	2,508	2,458	2,855
Undeveloped	**5,858**	5,839	5,575	6,317
Foreign —				
Developed	**69**	69	64	55
Undeveloped	**16,752**	16,236	10,849	10,161
Coal				
Coal shipments (thousand tons):				
Domestic	**31,114**	26,936	22,888	24,371
Foreign	**8,333**	5,511	3,249	2,778
Total	**39,447**	32,447	26,137	27,149
Coal reserves (million tons recoverable):				
Domestic	**869**	877	910	991
Foreign	**321**	306	118	124
Total	**1,190**	1,183	1,028	1,115
Net coal acreage (thousand acres):				
Domestic	**76**	78	122	222
Foreign	**14**	12	6	6
Average market price (dollars/ton):				
Domestic	**$ 9.29**	$10.60	$11.42	$11.15
Foreign	**$31.33**	$28.87	$25.27	$29.42

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	1989	1988	1987	1986
Refining and Marketing				
Refinery runs (thousand barrels/day):				
Blended crude oil —				
Los Angeles, California	**233.6**	224.4	211.8	219.9
Cherry Point, Washington	**167.3**	172.5	160.8	154.3
	400.9	396.9	372.6	374.2
Unfinished stock —				
Los Angeles, California	**10.8**	.7	4.1	11.0
Cherry Point, Washington	**1.4**	.2	.9	1.6
	12.2	.9	5.0	12.6
Total	**413.1**	397.8	377.6	386.8
Petroleum product sales volumes, including intersegment sales (thousand barrels/day):				
Domestic —				
Gasoline	**223.1**	214.8	209.2	187.4
Distillate fuels	**85.4**	87.2	84.9	88.7
Jet fuels	**84.3**	78.5	72.0	63.3
Coke	**13.3**	16.2	13.6	15.8
Natural gas liquids	**12.8**	9.8	7.0	5.3
Other	**16.6**	12.3	19.5	30.6
Total West Coast	**435.5**	418.8	406.2	391.1
Eastern marketing area	**—**	—	—	7.7
Total Domestic	**435.5**	418.8	406.2	398.8
Foreign	**93.0**	85.1	86.2	87.4
Total	**528.5**	503.9	492.4	486.2
Domestic branded retail outlets	**1,700**	1,700	1,750	1,700
Transportation				
Crude pipelines (miles)	**7,500**	7,500	7,500	7,500
Product and petrochemical pipelines (miles)	**3,000**	3,000	3,000	3,000
TAPS throughput (thousand barrels/day)	**1,880**	2,034	1,959	1,819
Crude transported (million barrel miles)	**158,500**	182,600	163,000	164,900
Product transported (million barrel miles)	**9,500**	10,300	10,400	10,100
Tankers owned	**10**	10	10	10
Tonnage (thousand tons)	**1,500**	1,500	1,500	1,500
Intermediate Chemicals and Specialty Products				
Chemical product sales volumes, including intersegment sales (millions):				
Propylene oxide and derivatives (pounds)	**2,586**	2,812	2,334	1,986
TBA and derivatives (gallons)	**912**	917	794	680
Styrene monomer (pounds)	**977**	1,159	821	821
Polystyrenics (pounds)	**501**	506	469	437
Chemical sales revenue, including intersegment sales (millions)	**$2,663**	$2,700	$1,967	$1,907

	1989	1988	1987	1986
Other Data				
Dividends:				
Common stock — total (millions of dollars)	**$ 756**	$ 700	$ 710	$ 701
— per share	**$ 4.50**	$ 4.00	$ 4.00	$ 4.00
Total dividends declared (millions of dollars)	**$ 760**	$ 704	$ 714	$ 706
Common stock:				
Average shares outstanding, including equivalents (millions of shares)	**173.4**	180.4	183.3	182.2
Earned per share continuing operations	**$11.26**	$ 8.78	$ 6.68	$ 3.38
Book value per share	**$39.40**	$35.59	$32.38	$28.91
Market price per share — high	**114⅜**	90⅞	99⅛	64⅜
— low	**80⅜**	67½	58¾	45¼
Stockholders (thousands)	**126**	158	166	178
Employees (thousands)				
Resources:				
Oil and gas	**10.4**	10.6	10.1	10.3
Coal	**1.7**	1.2	1.2	1.2
Products:				
Refining and marketing	**7.7**	7.1	7.2	7.2
Transportation	**1.7**	1.6	1.6	1.6
Intermediate chemicals and specialty products	**3.2**	3.0	2.5	2.6
Integrated petrochemical and petroleum processing	—	2.0	1.9	2.1
Other operations	**1.9**	2.0	1.8	2.0
Total	**26.6**	27.5	26.3	27.0
Payroll expense (millions of dollars)	**$ 1,256**	$ 1,209	$ 1,147	$ 1,117
Financial Data				
Total assets	**$22,261**	$21,514	$22,890	$21,913
Working capital	**$ 1,977**	$ 1,493	$ 2,885	$ 1,945
Current ratio	**1.58**	1.46	1.64	1.50
Long-term debt	**$ 5,287**	$ 5,400	$ 6,028	$ 6,662
Stockholders' equity	**$ 6,562**	$ 6,247	$ 5,878	$ 5,259
Research and Development Expense	**$ 112**	$ 119	$ 109	$ 94

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Executive Vice President

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Vice President, Planning

Howard L. Edwards
Corporate Secretary

	1989				1988			
	4th	3rd	2nd	1st	4th	3rd	2nd	1st
Common Stock:								
Market Price Per Share — High	114⅜	108¾	95½	92¾	82¾	84⅜	90⅞	84⅛
Low	95½	93⅛	88⅜	80⅜	76⅛	76½	80	67½
Cash Dividends Per Share	$1.125	$1.125	$1.125	$1.125	$1.00	$1.00	$1.00	$1.00
$3.00 Convertible Preference Stock:								
Market Price Per Share — High	751	710⅝	629	610¼	544½	566	597¾	531
Low	692⅛	632	601⅞	576½	533¾	534	543¼	507⅛
Cash Dividends Per Share	$ 0.75	$ 0.75	$ 0.75	$ 0.75	$0.75	$0.75	$0.75	$0.75
$2.80 Convertible Preference Stock:								
Market Price Per Share — High	271¼	258¾	228	220	196¼	201	216	199¾
Low	234	225⅜	211⅞	192⅝	183	184¾	191½	165
Cash Dividends Per Share	$ 0.70	$ 0.70	$ 0.70	$ 0.70	$0.70	$0.70	$0.70	$0.70

Stock Exchanges

Atlantic Richfield Common Stock is listed on the New York, Pacific, Basel, Geneva and Zurich stock exchanges. The $2.80 Preference Stock and the $3.00 Preference Stock are listed on the New York and Pacific stock exchanges.

Transfer Agent and Registrar

First Chicago Trust Company of New York
P.O. Box 3981
Church Street Station
New York, New York 10008-3981
(212) 791-6422

Annual Meeting

The Annual Meeting of Stockholders will be held on May 7, 1990, beginning at 10 a.m. in the Grande Ballroom, Sheraton Grande Hotel, 333 South Figueroa Street, Los Angeles, California. Notice of the meeting, proxy statement and proxy card will be mailed to stockholders in advance of the meeting.

Information

Communications regarding stock accounts, dividends, dividend reinvestment or change of address should be directed to:
First Chicago Trust Company of New York
P.O. Box 3981
Church Street Station
New York, New York 10008-3981
(212) 791-6422

For information about ARCO, including a copy of the Form 10-K, as filed with the Securities and Exchange Commission, write to:
ARCO/Investor Relations Department
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Los Angeles, California 90071-2256

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